THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXXIII DECEMBER 19, 1947 No. 5470

"OF THE ATMOSPHERE OF A CHURCH"

ON the subject of church architecture no one is better entitled to be read with attention than the author of this booklet. * Still in active practice after a lifetime devoted to the exercise of his art, he has garnered not merely the fruits of long experience but a store of knowledge far wider than that possessed by most church architects to-day. His works reinforce his authority: in building, in stained glass, in decoration, in sculpture and all the ancillary crafts an astonishingly large output has never been accompanied by a sacrifice of quality. Changes and developments have come with expanding vision and the tolerance which a catholic outlook engenders; but always, with rare sincerity, one ideal has been consistently followed. It is, of course, the only ideal that can afford real inspiration in architecture or any other art—the quest of beauty. In its single-minded integrity of purpose may, indeed, be read the supreme lesson of Mr. Comper's achievement, the reason why so much of his work seems invested with an ineffable charm. Conceived without regard for fashion, it now seems fresher than the fashionable; despite the scowls of those who see in the continued use of ancient architectural forms only the seeds of error and superstition, it delights those whose perception of beauty is not blinded by self-made prejudices.

In discussing the atmosphere of a church, the main thesis of his argument is that expression of the spirit of the age should not be the chief preoccupation of the architect of a church; this should rather be to transport the worshipper from the temporal into the eternal. A church should reflect not the Jerusalem that now is, but the Jerusalem which is above, for people entering a building scarcely distinguishable from a superior school assembly hall are not likely to be moved to exclaim: "This is none other but the house of God and this is the gate of Heaven." The real danger to-day is secularism. The craving for what would formerly have been called a style, but is now termed a contemporary idiom, is already spreading new dullness—a uniformity of thought and expression of which we are coming to recognise the canons. Public buildings of cultural significance—among which religious buildings appear to be classed—are encouraged to proclaim their place in the community by sprouting tall gaunt towers, exactly alike, save that that of the town hall has a clock, that of the church an elongated cross and that of those owning no proprietary slogan a balcony with an iron railing. Internal decoration shows similar resemblances: woodwork befitting the seats of the council chamber or (in cheaper form) the choir stalls of the church; tip-up folding chairs as serviceable in a recreation room as in a nave; the same colour schemes, the same curtain fabrics, the same lighting fittings. It is all well meant and it may seem logical; the churches may even be reverently intentioned. But too often they exude not religion but religiosity. They represent what their designer supposes a religious building should be like; yet the truth is not in them.

The remedy lies partly with architects and partly with the clergy. It is the architect's duty to shake free of the stranglehold of notions that, though they may not be irrelevant, are not of the first importance. Originality and modernity can easily become overrated virtues. Real originality is given to few, and attempts at originality usually turn out to be boring or crude. Modernity is by its nature ephemeral. A building cannot be modern for long: it may continue to be described as a good modern building, but that only means that its reputation rests on solid architectural merit. Still less is it necessary to eschew reaping where others have sown—to be fearful of drawing from the treasury of human skill from that silliest of all inhibitions, that what has been done before must never be done again. The value of tradition has been obscured by cloudy talk about "traditionalism" (dreadful word !) just as genuinely creative art has been embarrassed by "modernism." But the Jerusalem which is above is *free*: it admits no exclusiveness of past, present or future. Only the spurious it rejects, because the spurious has no lasting worth. In Mr. Comper's words "the note of a church should be, not that of novelty, but of eternity. Like the Liturgy celebrated within it, the measure of its greatness will be the measure in which it succeeds in eliminating time and producing the atmosphere of the heavenly worship."

The shortcomings of too many English churches built to-day are not, however, solely the fault of architects. A church is required to meet certain needs and conditions and architects cannot be held responsible if the clergy and church councils who draw up those conditions are sometimes wholly ignorant of liturgical requirements but greatly interested in trivialities. A deplorable kind of sentimentality is, it must be confessed, all too typical of present-day Anglicanism. It finds expression in children's corners, the meaningless repetition of the sign of the cross as a decorative symbol, movable altars, trick effects of lighting and electric peals of bells. It is indulgent to other abuses—the holding of concerts and the presentation of plays in churches (which latter Mr. Comper strongly condemns), even to a readiness to treat the nave as a social hall. Little objection appears to be felt to building new structures that suit a variety of purposes during the week and only become a church on Sundays. But the atmosphere of a church is not acquired by opening folding doors and revealing an altar in a recess. The altar is the focus of worship, but holiness is not confined to the sanctuary. The atmosphere of a church depends on holiness—and beauty—pervading every part and permeating every detail.

It may be hoped then that clergy as well as architects will absorb and profit by what Mr. Comper has to say in this all too short essay. It combines practical advice with some searching criticism. But it was written, he tells us, in 1939, and how much more trenchant a continuation might he not write to-day. If our cathedrals, which should be models for imitation, see fit to disfigure their exteriors, apparently in perpetuity, with rising mains and A.R.P. ladders, and their interiors with the tiresome paraphernalia of sound amplification, what further mischievous ideas may it not soon be needful to combat in our parish churches ?

* "Of the Atmosphere of a Church." By J. N. Comper. (London: The Sheldon Press.) Price 1s. 9d. net.

NOTES AND NEWS

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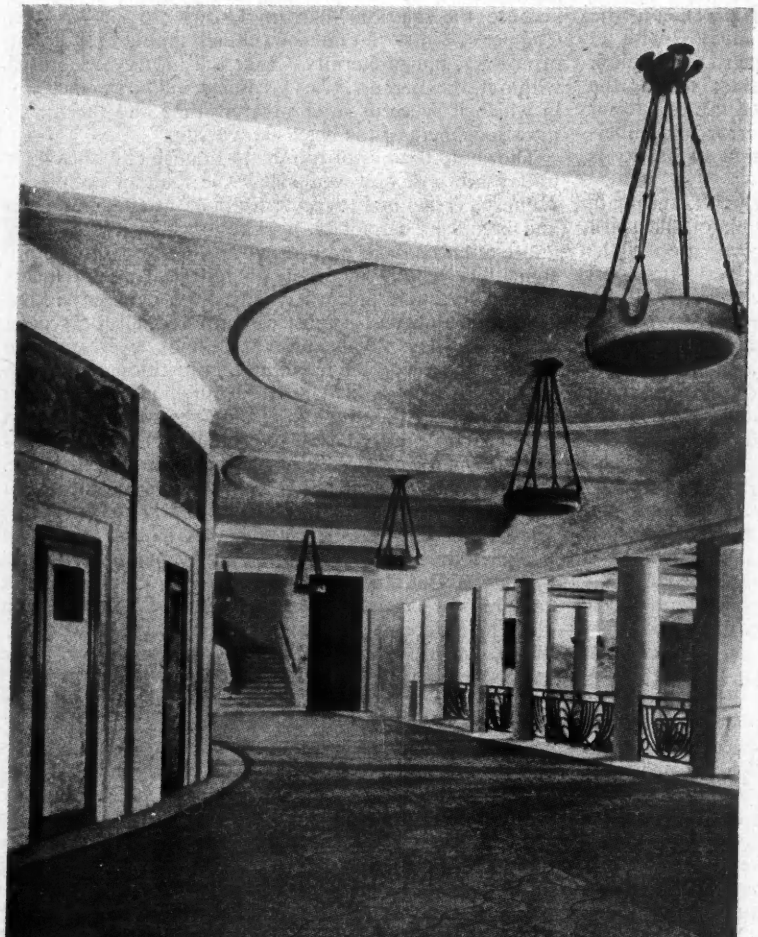
The A.A. Centenary.

THE Architectural Association, which held its first meeting on May 5, 1847, is this week making the official celebration of a great event in its career. The centenary was marked in *The Builder* for May 2 last, but we take this opportunity of renewing our congratulations and of wishing the Association and its members, whether architects or students, every success and good fortune in the next 100 years. Some reminiscences of early A.A. days, by Mr. F. R. Yerbury, Hon. A.R.I.B.A., for many years Secretary to the Association, begin on page 697.

The centenary celebrations include an exhibition—covering the work of the last 100 years, to which the A.A. has made an outstanding contribution—put together under the direction of Mr. Colin St. Clair Oakes, A.R.I.B.A., who is acting as architect to the Exhibition.

The A.A. was founded 100 years ago. The centenary celebrations are being held on December 17, 18, and 19, and these will include the exhibition. The exhibition provides a survey of British architecture during the Victorian era and after, but its real purpose is to show the part which the A.A. has played during that time and to give some idea of its multifarious activities. The small exhibition of portraits of past presidents, on the ground floor at 34-36, Bedford-square, is in itself an interesting cross-section of portrait painting through three generations. In the library are examples of the work of past presidents from 1847 to 1900. Whatever criticisms may be made of Victorian architecture, the exhibits show beyond doubt that the period was one of artistic conflict and controversy; with the aristocratic and classical tradition pulling in one direction, Ruskin and the Romantics in the other, it could hardly fail to have been so. That discussion and controversy have now been transferred to the difficult field of modernism merely emphasises the tradition of vitality and the secret of eternal youth—both of which would seem to belong to the A.A. The A.A. "Scrap Book"—prints, drawings, documents—in an adjoining room show that in its social activities the A.A. has also been always very much alive.



From "Examples of Modern French Architecture."

THEATRE DES CHAMPS-ELYSEES, PARIS. Designed (1911) by M. Auguste Perret, nominated Royal Gold Medallist, 1947.

The A.A. Schools.

THE original sketching classes and atelier of the A.A.'s early days have grown, and now in and around Bedford-square is one of the country's major technical training centres—a full-time, five year course for over 500 students, the largest independent school in the Empire. The foreign summer schools and the practical training centre in Morwell-street are features of interest. Two studios, on the second and third floors, show some of the work done by students since the war, and are perhaps an indication of the kind of buildings we may expect to see in the future. It is the A.A.'s boast that no style or manner is imposed or even taught to the students; in a rapidly changing world it is thought that only sound practical planning and a real understanding of modern technique in building can produce that which may eventually emerge as the real architecture of the twentieth century.

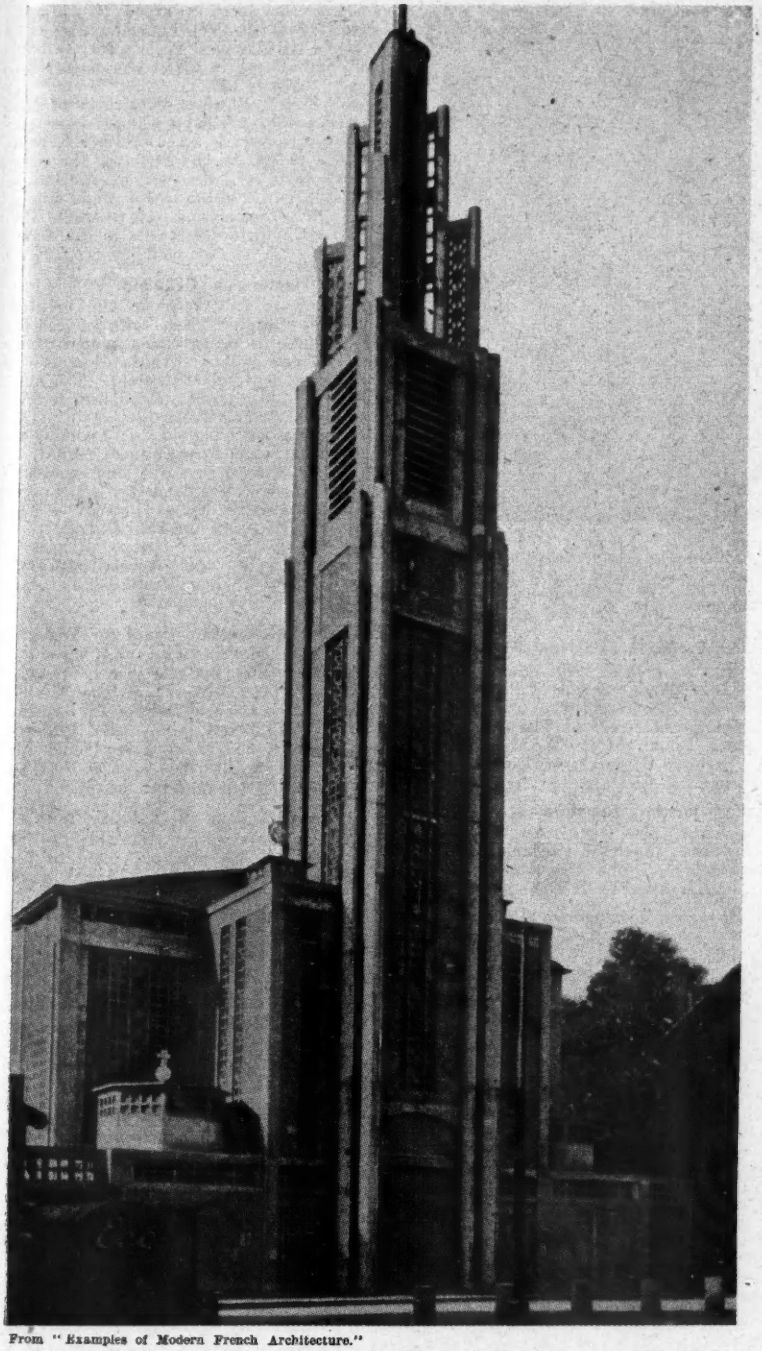
"Just Banks!"

READERS who are in the habit of listening to the B.B.C. Saturday night plays could not possibly have failed to be intrigued by the character of the architect as pictured by Dodie Smith in her charming play "Touch Wood," which was broadcast recently. His answer to the question of what type of work he did ("Oh, Just Banks!") certainly had in it the seeds of an historic understatement. At a time of this sort any architect with a fair knowledge of conditions in 1947 could not be blamed for turning a full circle in his armchair, and yet, to look out of this age back into another, banks actually were designed and built, and what's more the architect was paid on the recognised scale of fees! Bank architects were lucky people, for the atmosphere of security and solidity (not to mention wealth) had to be achieved, and the obvious way to obtain this was by building expansively and impressively.

Towards the finish of the play, the architect becomes involved with one of those inspiring types of young women (shades of Ibsen's Master Builder!) who keeps urging him on to build greater things (greater things in this case meant cathedrals). The 1947 parallel to this could so easily be an architect neck-high in war damage, but dreaming of building Atomic Research Centres.

Shop Signs.

SIR AMBROSE HEAL'S new book upon London shop signs is notable for its charm and revelation of the seventeenth- and eighteenth-century shop scene in London. Very few "period" shops remain in London, and it comes almost as a shock to happen upon one in the midst of so much



From "Examples of Modern French Architecture."

CHURCH OF NOTRE DAME du RAINCY. Designed (1923) by Auguste Perret, nominated as Royal Gold Medallist, 1947.

blatancy which passes for modern shop-front design. The essence of Sir Ambrose Heal's book is that in those days a sign giving the type of shop and the owner's name was all that was necessary in the way of external advertisement. The quality of the goods sold spoke for itself, there was no need for the ostentatious verbiage which is indulged in to-day in order to pull the customers in. The scene was, of course, much smaller, economically and physically, but there is still no reason for the extraordinary displays of bad taste prevalent to-day in shop design, for although the word "competition" looms large in every shopkeeper's vocabulary, it is difficult to believe that if a strict rein was put on advertising and size of name-boards, etc., the customers would stay away.

This book could be described as a book of fine taste, and fine taste still remains one of the most laudable things in life. The difference between good and bad taste could well be said to be the difference between walking down St. James's-street and the Edgware-road.

Building Research Advisory Council.

FOLLOWING the statement by Mr. Key, as reported in our Parliamentary notes last week, to the effect that he had appointed an Advisory Council on Building and Civil Engineering Research and Development, the Minister of Works has issued the following terms of reference:

1. To keep under review the whole field of building research and technical development and the results obtained therefrom; 2. To suggest from time to time subjects of further research and development with due regard to their relative importance and urgency; 3. To advise on the programme of sociological and economic research in the building industry and other research and development work for which the Ministry of Works is responsible; and 4. To advise on the methods of securing the use by industry of the results of research and technical development.

The Council is made up as follows: Chairman, Sir Harold Emmerson, K.C.B. (Permanent Secretary, Ministry of Works); Vice-Chairman, Sir George Gater, K.C.B., K.C.M.G., D.S.O. (Chairman of the Building Apprenticeship and Training Council).

Professor J. D. Bernal, F.R.S., Professor H. V. A. Biscoe, Mr. D. N. Chester, Mr. H. E. Comben, Mr. R. Coppock, C.B.E., Mr. C. T. Every, C.B.E., Mr. L. Fawcett, O.B.E., Captain A. H. Holbein, Mr. T. C. Howitt, D.S.O., Sir Lancelot Keay, K.B.E., P.R.I.B.A., Mr. A. Lamond, C.B.E., Professor C. A. Mace, Professor J. M. Mackintosh, Dr. L. J. Murdock, Mr. W. T. Porteous, Mr. B. Sandercock, O.B.E., Mr. E. J. Smith, Professor W. N. Thomas, C.B.E., Mr. Guthlac Wilson, Dr. F. Yates, Professor S. Zuckerman, C.B., F.R.S.

Together with Assessor members from the following Government Departments: Ministry of Education, Ministry of Fuel and Power, Ministry of Health, Department of Health for Scotland, Department of Scientific and Industrial Research, Ministry of Works.

Committee on Rating of Site Values.

THE Minister of Health, in reply to a Parliamentary question on December 4, announced the appointment of a Committee on the Rating of Site Values, with the following members: Mr. Erskine Simes (chairman), Mr. J. D. Trustram Eve, Mr. C. H. Lockhart, Mr. R. R. Stokes, M.P., Mr. C. H. Walker, Sir William Darling, M.P., Mrs. Ursula K. Hicks, Mr. James McBoyle, Mr. T. A. O'Hare, Mr. T. Waterhouse.

Terms of reference are: "To consider and report on the practicability and desirability of meeting part of local expenditure by an additional rate on site values, having regard to the provisions of the Town and Country Planning Acts and other factors." The Joint Secretaries are: Dr. E. Grey Turner, Ministry of Health, and Mr. J. S. Gibson, Scottish Home Department. Correspondence for the Committee relating to England and Wales should be addressed to Dr. E. Grey Turner, Ministry of Health, Whitehall, London, S.W.1; and for Scotland to Mr. J. S. Gibson, Scottish Home Department, St. Andrew's House, Edinburgh.

Advisory Committee for Easington.

THE Minister of Town and Country Planning, Mr. Lewis Silkin, M.P., has appointed the following committee to advise him on his proposal to build a new town at Easington, Co. Durham:— Mrs. Monica Felton, Ph.D. (Chairman); Mrs. J. W. Gray; Councillor H. Lee; Mr. J. M. MacKay; Councillor H. O. Neil and Alderman E. Robinson.

Architectural Display, Hotel Exhibition.

A SPECIAL feature of the Hotel and Catering Exhibition at Olympia, from January 16-24 next, will be a display of photographs, plans and models comprising an architectural exhibit, and drawing upon recent work in Britain, Europe and America. Among a panel of architects advising the exhibition authorities are Mr. Basil Oliver, Mr.

WHOSE HOUSE? The Council for Visual Education is anxious to know the name of the architect for this house believed to be at Alderney, Channel Islands. We shall be glad to hear from any reader who can give this information. The Council proposes to include the house in an Exhibition of Small Houses intended for use in schools.

Howard Robertson, Mr. W. Yates, Mr. Oswald P. Milne, Mr. Curtis Green, R.A., and Mr. E. B. Musman. Hotels, restaurants, canteens and holiday camps are included.

Ministry of Education Chief Architect.

THE Civil Service Commission invite applications from suitably qualified candidates for the post of Chief Architect in charge of the Architects' Branch at the Ministry of Education. The post, which will be an established one, will be open to both men and women, and will carry an inclusive salary of: Men, £1,600—£50—£1,800; Women, £1,425—£50—£1,625. Candidates should normally be at least 35 on January 1 next, but applications will be considered from exceptionally well-qualified candidates below this age. Full particulars from the Secretary, Civil Service Commission, 6, Burlington-gardens, London, W.1, quoting No. 2080, to whom completed applications should be sent not later than January 15 next.

Neighbourhood Planning.

IN a report released by the Russell Sage Foundation, of New York, James Dahir quotes Walter C. Carey as predicting that probably in twenty years' time "Europe's cities will have been rebuilt in accordance with well-thought-out plans, while America is still debating the basic proposition whether planning is necessary at all."

This quotation supported Mr. Dahir's statement, in his report on "The Neighbourhood Unit Plan," that public apathy was perhaps the foremost obstacle to intelligent planning in America. Nevertheless, Mr. Dahir indicated that neighbourhood planning was gradually being accepted, and had been successfully applied in a number of instances.

According to various sources, the "Neighbourhood Unit Plan" may be defined as a system of planning which enables small communities to be grouped equidistant from first-class facilities of a type that no neighbourhood could support alone. These amenities, together with the fact that communities would be by-passed by main traffic arteries within easy reach, would provide the inhabitants (composed of all income groups) with opportunities for citizenship activities, relaxation and a sense of security.

The Evolution of a New Town.

SIR THOMAS BENNETT, C.B.E., F.R.I.B.A., Chairman of Crawley—Three Bridges Development Corporation, will give an address on "The Evolution of a New Town" at the Royal Institution of Chartered Surveyors on Monday, January 5 next, at 5.30 p.m.

Parliamentary Appointment.

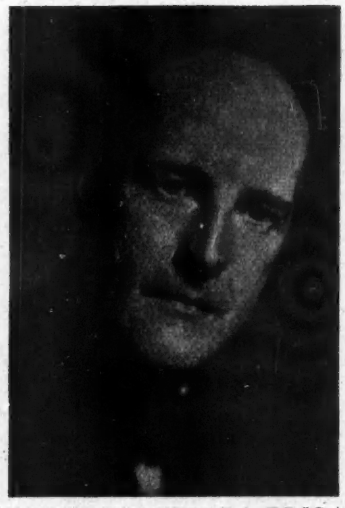
LIEUT.-COL. GRANVILLE SHARP, M.P., has been appointed Parliamentary Private Secretary to the Minister of Works in succession to Mr. J. Diamond, M.P.

Stevenage Development Appointment.

MAJOR-GENERAL A. C. DUFF, C.B., O.B.E., M.C., has been appointed general manager to the Stevenage Development Corporation.

Notts, Derby and Lincoln Medal.

THE L.M.S. Railway's Derby School of Transport, which was illustrated in *The Builder* on July 29, 1938, shortly after its opening, has been awarded the bronze medallion of the Nottingham, Derby and Lincoln Architectural Society for the best building erected in the three counties between 1937 and 1938.



MR. EDWARD B. MAUFE, R.A., F.R.I.B.A., whose election as full Academician of the Royal Academy is announced.

Sir Robert Burrows, Chairman of the L.M.S., who unveiled a plaque commemorating this award on December 4, paid tribute to Mr. W. H. Hamlyn, the company's architect, who designed the building, and said that the award would stimulate Mr. Hamlyn and his assistant, Dr. Martin, to further successes in the many schemes they had in hand for the L.M.S.

Street Planning on Celluloid.

A 16-mm. silent colour film entitled "Street Prospect" has been produced by the Bournville Village Trust in an attempt to illustrate certain methods of landscape treatment in residential areas. The film, in which illustrations are confined, for the most part, to the Bournville Estate, introduces the following points: Planning as the basis of good appearance; regard for existing natural features and contour; open spaces as the landscape setting for residential units; use and misuse of road trees; varieties of ornamental trees; and the use of grass and flowers. Copies of the film may be hired free of charge from the Bournville Village Trust, Estate Office, Bournville, Birmingham, 30.

Ancient Monuments Board for Wales.

THE Minister of Works has appointed Professor Sir Ifor Williams, D.Litt., F.B.A., F.S.A., to succeed the late Sir John Lloyd as chairman of the Ancient Monuments Board for Wales. Professor William Rees, D.Sc., F.S.A., and Mr. J. G. Edwards, F.B.A., have been appointed as members of the Board.

Technical Section, the Building Centre.

MR. GONTRAN GOULDEN, T.D., A.R.I.B.A., has been appointed to take charge of the technical section at the Building Centre from November 1. Since the war he has been a member of the teaching staff of the A.A. School of Architecture, and in practice in association with Christopher Nicholson and Hugh Casson.

Change of Address.

THE address of the Institution of Heating and Ventilating Engineers on and after December 18 will be 75, Eaton-place, London, S.W.1.

Professional Announcements.

THE address of MR. HARRY BROMPTON, M.I.C.E., M.I.Struct.E., M.Inst.W.E., consulting Civil Engineer, has been changed to 7, Hobart-place, Westminster, S.W.1 (tel.: Sloane 0716-7).

A. S. WILSON AND PARTNERS, chartered quantity surveyors, of 8, Princes-street, Storey's-Gate, Westminster, and of Winchester, have opened an office at 6, London-road, Chelmsford, Essex.

From *The Builder* of 1847

Saturday, December 18, 1847.

On more than one occasion we have mourned over the decay of skill among our operative bricklayers—the sad result of cutting estimates, sub-letting and the use of "compo." . . . Bricklayers are no longer animated by the right spirit; pride in their work they have none; anxiety to excel exists no longer. Exceptions, of course, there are. . . . The men themselves are scarcely to blame: they have not had fair play. There are few apparent inducements for good work or superior skill; rapidity and bad work are what their masters have desired and the result is, that men capable of executing good work are with difficulty to be found. . . . Some efforts to advance our operatives are urgently needed. (*From an Editorial.*)

SOME A.A. REMINISCENCES—I.

By F. R. YERBURY, Hon. A.R.I.B.A.

MY own connection with the Architectural Association started somewhere in 1901. Then the Association was housed at 56, Great Marlborough-street. It occupied a suite of rooms on the ground floor with an office and library combined, together with a so-called common room for members. The studios in which evening classes and lectures were held were in an extension three storeys high at the back of the building. Pupilage and evening classes made up the system of architectural training with the Preliminary, Intermediate and Final Examinations as its only gateway to Associateship of the R.I.B.A.

There is no doubt that the old A.A. evening classes and studio instructors produced pretty good results and were well thought of and popular. At the beginning of each session some 200 to 250 students would sign for its studio, then under the control of W. E. B. Lewis, a dynamic ginger-headed and ginger-whiskered personality who set a stiff pace for his pupils, and who gave them a good grounding in the Classic orders and a very heavy plateful of geometry. Design as such was never taught in the studios. There was a very impressive list of lectures on construction, materials, sanitation and, of course, history in a big way. It must be remembered that in those days very great importance was attached to a thorough knowledge of architectural styles, and the memorisation of mouldings and ornament of the Gothic periods was an essential to the passing of the examinations. Lectures dealt with details and rates rather than the principles of design, composition or plan. Students were expected to keep notebooks which were examined and marked by the lecturer at the end of his course, for which prizes were awarded. Many lecturers were also authors, and quoted very largely from their own works. There was an embarrassing occasion when one well-known author-lecturer interrupted his talk to ask a student in the front row why he was not taking notes; a round of applause followed on his reply that "I have already bought one copy of your book, sir."

One of the most interesting of the lecturers was that slightly eccentric but very likeable Hugh Stannus, whose subject was Greek and Roman. He would wander around on the platform in a frock coat, more often than not with no laces to his boots and the uppers showing above his trousers, deliberately fish out from his tail pocket a black skull cap, carefully adjust it and invariably start with "Fellow students"—with a slight whistle at the beginning and end of "students"—a splendid subject for the witty mimics. Stannus was a pupil of Alfred Stevens, and often quoted him. He had a habit on his blackboard works of forming his letter S the opposite way round to the usual, and would always spell his "Committee" with a K. There was one occasion when he was giving a lecture at a sessional meeting on some phase of the Classic, with chalk illustrations, when his old sparring partner, Phèné Spiers, who always disagreed with him in public, and was sitting in the front row, suddenly interrupted with "Why on earth, Stannus, do you make your S the wrong way and use an absurd K when you should use C?" Stannus got slightly rattled, and fixing his eye on the red tie Spiers was wearing, said: "A man once went to the races wearing a red tie. He met a friend who said, 'Why do you wear a red tie to the races?' He replied, 'To give fatheads like you something to talk about.'" It was a very jovial evening!

The only training the A.A. gave in design was the Classes of Design—Elementary and Advanced. A panel of Honorary "Visitors" was formed each year, and six subjects were set each session, and for 5s. the student received programmes of them. Sketch designs were submitted, and the "Visitor" could have perhaps 50 or 60 drawings sent him to consider over the week-end and then attend on the following Tuesday evening and give his criticisms on the drawings which were hung on screens. The finished designs were dealt with in this same way at a later meeting. There are very few well-known senior London architects of to-day who were not members of the old A.A. Classes of Design. Many famous names could be quoted, and some will no doubt remember Sir Giles Gilbert Scott as one of them. He was a member, and actually had drawings hanging for criticism when the news came that he had won the world-wide competition for Liverpool Cathedral.

Whilst the A.A. was still at Great Marlborough-street its general meetings were held in the R.I.B.A. meeting room at 9, Conduit-street. They were always packed and usually lively, and often dealt with subjects regarded then as revolutionary. On one occasion a lecture was given by Miss Ethel Charles on "A plea for women practising architecture." Quite a number of the "big shots" of the day attended and talked. Arnold Mitchell was shocked—no lady could possibly be seen climbing ladders in public or move in an atmosphere where language was often used not fit for the ears of a refined woman. Leonard Stokes, whose force of expression was notorious—there are many good stories about this—remarked that he was bound to say, that in all his experience both in architects' offices and on jobs he had never heard one word used which to him seemed out of place. Well this was many years ago. Miss Ethel Charles should indeed be honoured by the hundreds of women who have passed through the schools since the first of them were admitted in 1917, bearing in mind especially that at least 200 have married fellow students!

Very largely through the efforts of W. H. Seth Smith, the then president, a full term two-year day school course was commenced in 1902 under the headmastership of Arthur Bolton, who later became Curator of the Soane Museum. It started with six students—two of whom usually attended in top hats and frock coats, which was indeed the uniform of the staff both in the school and office.

(To be continued.)

F. R. Yerbury, Hon. A.R.I.B.A.

CORRESPONDENCE

Building Industry and the "Cuts."

TO THE EDITOR OF *The Builder*.

SIR,—A note in the last issue of *The Builder* (page 685) reports Mr. Smith, President of the National Federation of Building Trades Employers, as saying that the Government had fully consulted with the building industry in the matter of the capital investment cuts, and implying that these cuts were made in agreement with the industry.

If any such conclusion has been drawn then I cannot wholly agree. There could not have been agreement, for we met the Minister of Works and not the Minister for Economic Planning who was responsible for the White Paper. We were not informed of all the details of the proposed reductions in capital investment and were not thus in a position to offer our observations on them. On close examination of the White Paper it would appear that unemployment among building operatives will be greater than anticipated.

R. COPPOCK,
General Secretary,
National Federation of Building Trades Operatives.
Cedars-road, S.W.4.

Trees in Urban Areas.

"THE common sight of trees mutilated by routine lopping is a result of lack of knowledge," states the Sheffield and Peak District Branch of the Council for the Preservation of Rural England, in a booklet, "Town Trees," recently issued by them. We agree with the Branch that there is no apparent reason for the frightful treatment meted out to some urban trees that have been brought to our notice. The booklet, which contains several illustrations of crude, unnecessary cutting of trees, to the detriment of the surrounding scene, goes on to show, by way of further illustrations, how the judicious care of trees in urban areas can make an immeasurable contribution to the charm of the locality in which they are allowed to grow. The price of the booklet is 9d. (10d. by post).

ECHOES AND ECONOMICS

SOME SKIMMINGS FROM THE CRIPPSIAN CRUCIBLE

By S. HOOKWAY, F.R.I.C.S.

"The Minister of Health, in a reply to a question, stated last week in the House that, in view of the altered economic and financial circumstances of the country, he had felt compelled to take steps to limit the provision of new houses. . . . He could not at present estimate the liability which might be incurred in connection with abandoned schemes."—As reported in *The Builder.*

I would suggest that very few people, not excluding even Mr. Aneurin Bevan himself, would lightly question the authenticity of the above if proffered as a Parliamentary report of a recent pronouncement in the House of Commons. And in truth it *is* taken from *The Builder*—but the date is 26 years ago; if you ask for chapter and verse, I give you June 24, 1921, page 807. The Minister of Health who spoke was Sir Alfred Mond.

The echo reaching us across a quarter of a century is unmistakable in what we have heard of the effect on housing and other building projects that will be the result of the capital investment cut, and as recently as December 5 Sir Stafford Cripps issued a further statement to the Press in which he said, "No indication can be given at present as to when work can be resumed on projects selected for suspension. This will depend on circumstances which cannot at present be forecast." . . . *"That strain again—it had a dying fall."*

A short while ago a leading article in *The Builder* suggested that history was in the mood to repeat itself; the article recalled that about two years after the end of the 1914-18 war "the Government of the day awoke to the fact that they were making a tremendous mess of the housing programme," and some of the lessons of those years of futility and frustration were gravely singled out for comment as related to the present post-war period of stress and struggle. The shadow on the wall in this regard was in fact visible even before the recent war was over, and the present writer makes no claim to particular longsightedness in recalling that in May, 1944, he drew attention in this journal, under the heading "Retrospective Reflections," to the fact that the problem then facing the building industry in this country was not a new one, and that in grappling with the difficulties ahead in housing and general retrenchment we had the pattern of a prior post-war world to guide us.

In studying the story of the trials that befell the building industry in 1921 and thereabouts, I had made several notes that did not appear in my article of May, 1944, and it was a quotation in the leading article in this journal (Dec. 5) that sent me looking for those notes. Here is one of them, from the same Parliamentary report as the excerpt first quoted above: *"In reply to a question asking if the right honourable gentleman was aware that some of the houses of the artisan class had cost over £1,700 each, the Minister of Health said there was no reason to believe that the cost would be so high as £1,700 each, but he was having the costs carefully scrutinised."* It appears that the Minister had not been told the giddy levels that costs were reaching. The lines recently in *The Builder* that rang this bell for me were these: *Asked what was the actual cost of houses to-day, Mr. Bevan said, "Very little information is available as yet on the post-war cost of house-building by local authorities."*

There is something rather pathetic about this echo, so it seems to me. But—*"Enough, no more; 'tis not so sweet now as it was before."*

Readers will have noticed an interesting and informative feature in a recent issue* in which Mr. S. Plaister set out graphically the increase in price levels of a representative group of items, taken from a bill of quantities, as between 1939 and the present day. The showing is that two years after the close of the recent war building prices had risen about 140 per cent. above the immediate pre-war level, and that at the present day the level is at the "plus 150 per cent." mark and still tending to rise. I can find little to quibble about in these figures, but I do find myself wondering what to infer from the retrospective glance into the corresponding period after the First World War, for the figures are in startling parallel. Two years after the close of the former conflict the level of building prices was 140 per cent. up on the pre-war figures, and it was when building prices had risen to the "plus 150 per cent." level and about 2½ years after the 1918 armistice that the "Geddes Axe" was swung, and though the axe fell not always with discrimination, it did in an incredibly short period turn over the parabolic upward curve of building prices, and then, thanks in no small measure to the fetters being struck from private enterprise, the level of building prices fell rapidly and retrenchment was achieved within a period that none would have dared forecast.

How far, I wonder, are we justified in expecting history to repeat itself on this count? In what measure will the outcome of the Crippsian Crucible be analogous to the results from the wielding of the Geddes Axe? Despite the blackness of the outlook, one feels retrenchment is still possible; it was done before. But in appreciating the similarity in the shape of these reflections and in the tone of these echoes it would be foolish to fail to notice where some rather disturbing differences lie.

One feels that the major disparity between "last time" and "this time" lies in that the potential for a renewal of confidence is not the same. That is not to say that men were not disillusioned after the First World War. They were, indeed; but the capacity of the human to witness within himself what has been called the triumph of hope over experience was then undiminished. That war was somehow believed to be a war to end war. Can we say that the same belief could have any foundation this time?

Repeated references have been made in the past two years to the decline in output that has continued to be apparent in building and in other industries, whereas it was confidently assumed that the inevitable decline during the war years would quickly be recouped. Hard things are being said about the operatives and their will to work. "Incentive" is the by-word of the day. And, like so many other of our modern devices, the incentive has had to be an artifice—prodded home with propaganda. Therein, I think, lies the essential difference between this time and last time. This time the natural and human incentive to work to enjoy the fruits of better times ahead is not a chord that responds. Whether we like to face it or not, the spirit of the times is "Take your chances now!" The atom-bomb on Hiroshima not only spread radio-active destruction in physical dimensions; its psychological impact on the incentive to work for those better times ahead was equally disruptive. And what must the effect of the recent announcement of some fantastic sum in millions being allocated to further atomic warfare research be on the plain man, whose incentive used to be the prospect of a house of his own?

The present Chancellor of the Exchequer cannot be expected to adjust the psychological impact of Hiroshima at one distillation, nor is he likely to do so whilst the alternate ballyhoo and anti-climax of the European settlement persists; yet if he could see his way, even by a straw in the wind, to recapture be it an echo of that old economy of "a house of my own," perhaps history might be wooed to repeat itself, or even seem to, and the spark therefrom might kindle fires of hope that none would have dared forecast.

* *The Builder*, November 14, 1947.

SOCIETIES & INSTITUTIONS

SOUTH-EASTERN SOCIETY OF ARCHITECTS

Kingston Group (Guildford Chapter)

The annual general meeting was held at the Guildhall, Kingston-upon-Thames, in November. The following were elected for the ensuing six months pending the inauguration of the Kingston Chapter: Chairman, J. W. Spink, J.P.; hon. treasurer, R. F. Alner; hon. secretary, D. Philimore Taylor, Dip.Arch. Committee: Messrs. H. W. Ashby, F. Barber, M.B.E., O. Bentley, W. M. Carter, W. H. Cutmore, H. N. Haines, E. R. Heathcote, B.A., N. B. W. Irwin, R. J. Killick, F. C. Otton, F. T. Smith, R. H. P. Stafford, C. A. Townsend, C. A. Trimm, M.C., and E. G. Wiseman.

A programme of meetings has been arranged, and intending visitors are asked to communicate with the Hon. Secretary, 60, King Charles-road, Surbiton, Surrey, prior to any of the meetings. A film-illustrated lecture on the "Manufacture of Window Glass and Its Uses" had been arranged for Wednesday, December 17, to be given at the Guildhall, Kingston-upon-Thames.

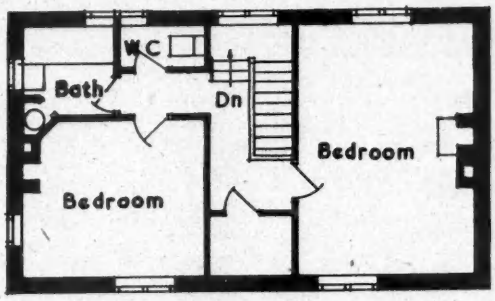
R.I.C.S.

Junior Organisation Quantity Surveyors

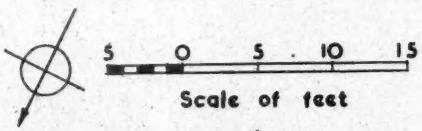
A meeting of Junior Organisation quantity surveyor members, held at the Royal Institution recently, was addressed by Mr. F. LESLIE HASKER, F.I.A.S., on "Bills of Quantities from the Viewpoint of the Architect." In the course of his talk Mr. Hasker emphasised that time was often the architect's taskmaster, and suggested that quantity surveyors might consider overhauling their methods in terms of the time required for the preparatory work in connection with bills of quantities. He expressed his opinion that a more logical format for a bill of quantities would be with the specification combined in the one document. The quantity surveyor's job was to keep in step with the architect.

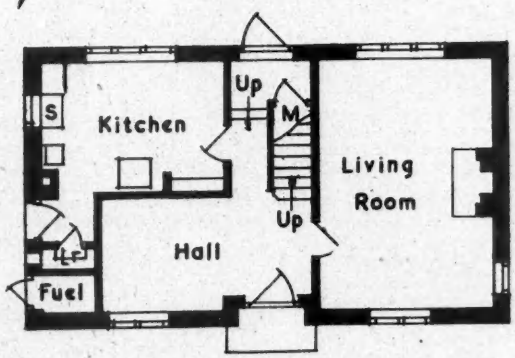
The occasion was also marked by the presentation to the Junior Organisation Quantity Surveyors' Committee, by Mr. H. W. Langdon, F.R.I.C.S., Member of Council, of a suitably inscribed chairman's gavel. The meeting was presided over by Mr. E. C. Harris, F.R.I.C.S.

The Garden Elevation.



FIRST FLOOR



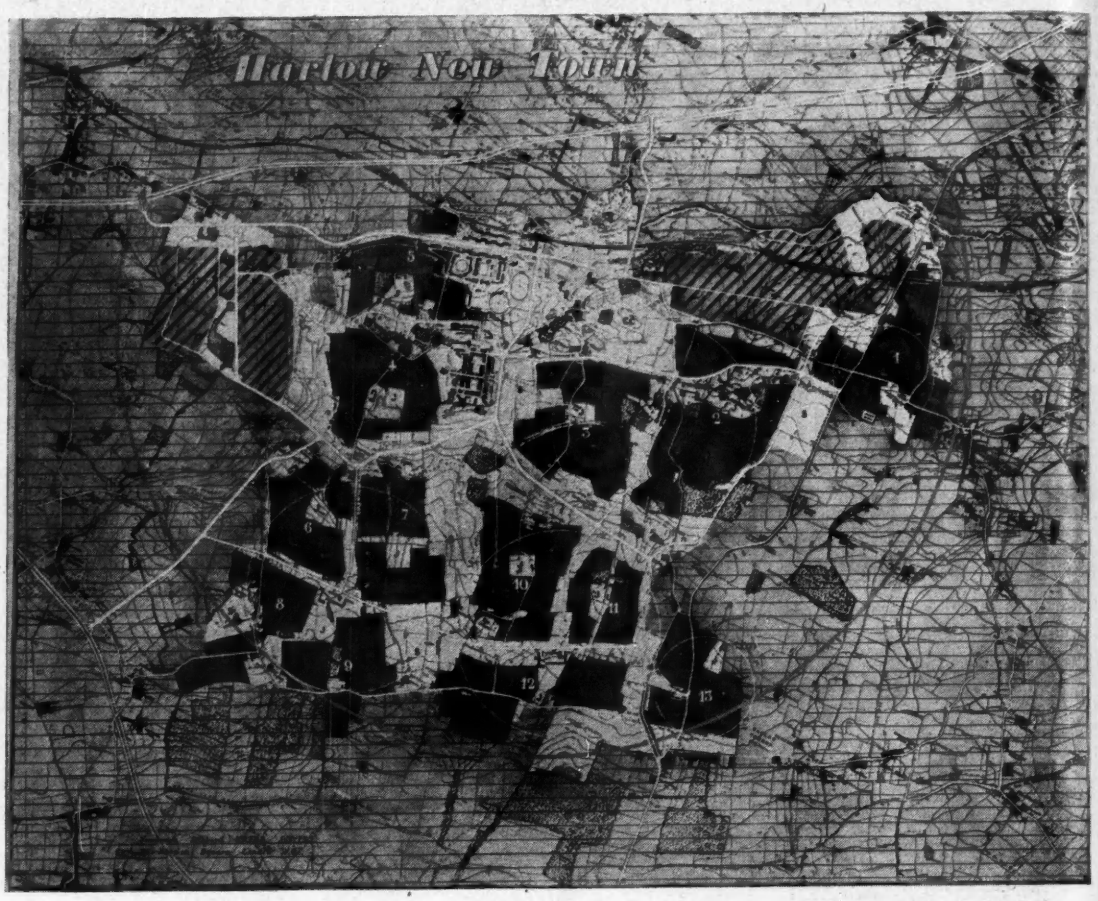


GROUND FLOOR

COTTAGE AT WESTHUMBLE

THIS COTTAGE AT WESTHUMBLE, NEAR DORKING, WAS built during 1946 to conform with the restrictions on houses built for private occupation. Only two bedrooms were required, and this allowed of some spaciousness in planning, and at the same time simplified the construction. The possibility of making future additions has been kept in mind. The cottage has 11-in. hollow walls, with roof of Marley interlocking concrete tiles. The windows are standard steel casements in purpose-made deal frames. In the ground-floor living rooms the ceiling joists have been exposed, allowing a reduction of 6 in. in the floor-to-floor height, improving the proportions of the cottages, and making a useful saving in cost. Celotex boarding laid under the floorboards gives the necessary insulation. The builders were Messrs. R. G. Collins, Ltd., of Dorking.

FARQUHARSON & McMORRAN,
FF.R.I.B.A., ARCHITECTS



HARLOW NEW TOWN

FREDERICK GIBBERD, F.R.I.B.A., A.M.T.P.I.,
Consulting Architect and Town Planner

AN OUTLINE OF THE SCHEME

THE plan for the new town of Harlow has been prepared on the assumption that a modern town must have its own individual and unique character, and that this character will, in the first place, arise from the exploitation of the individuality of the particular site, and, in the second place, from those qualities in the plan which go to make a work of art. An attempt has been made to produce a broad three-dimensional design, in which it is possible to obtain both a sense of urbanity and a close and intimate contact with Nature.

Form of Town.—Although the town plan is an "organic" one in that it is adapted to the natural topography of the area, it has a definite formal structure. Briefly, the form of the town is as follows :

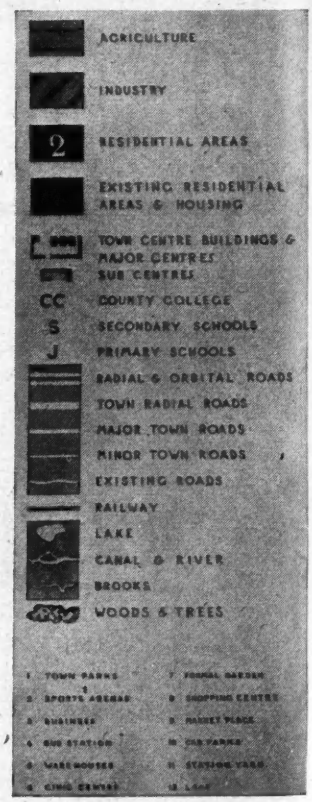
Road, rail and water transport run in a valley (the Stort) along the north boundary of the site. These main lines of communication form the base line of the town which extends to the south as a semi-circle. The railway station is planned in the centre of the base line, and, extending at right angles from it to the top of a hill, is the town's central area. A valley, parallel to the north boundary valley, runs through the centre of gravity of the site. This is left in its natural state, but opens out at each end into agricultural land, which forms wedges penetrating each side of the semi-circle. Housing areas are planned in clusters on the high ground overlooking the valleys.

Industry is in two areas at each end of the baseline with immediate access to the regional motorways. The two areas have direct connection by a straight road which also serves the station and central area independently of all housing areas. The town park lies between the industrial areas and connects the landscape of Hertfordshire on the north with the valley in the centre of the town.

Roads

A Radial Road Pattern intersected by roads at right angles to it.—The road plan attempts to give a direct and smooth traffic flow for fast and heavy vehicles. There is a minimum number of roundabouts and other intersections, and an independent local road system. The plan has been devised to give short direct access from all parts of the town to the town centre, and likewise from housing to industry.

The road pattern consists of a straight line on the base of the town, with the town centre projecting at right angles from the centre of it, and radial roads connect from the south-east and south-west corners to the town centre. Two roads lying at right angles to each radial give direct communication between housing and industry.



Industry

Industry is planned in two areas rather than one large area, because the latter would have the effect of cutting the town off from the Hertfordshire hills in the north, and because one large area would form a too large and dominating element. The area on the east is for the larger industries, and has road, rail and river connections. The area on the west is for smaller single-floor factories. Each area has its own centre with administrative, welfare and recreation buildings, and sports ground. An area for service industry and warehouses is planned next to the station, and all these areas are connected together by their own road system which leads straight out on to the regional roads.

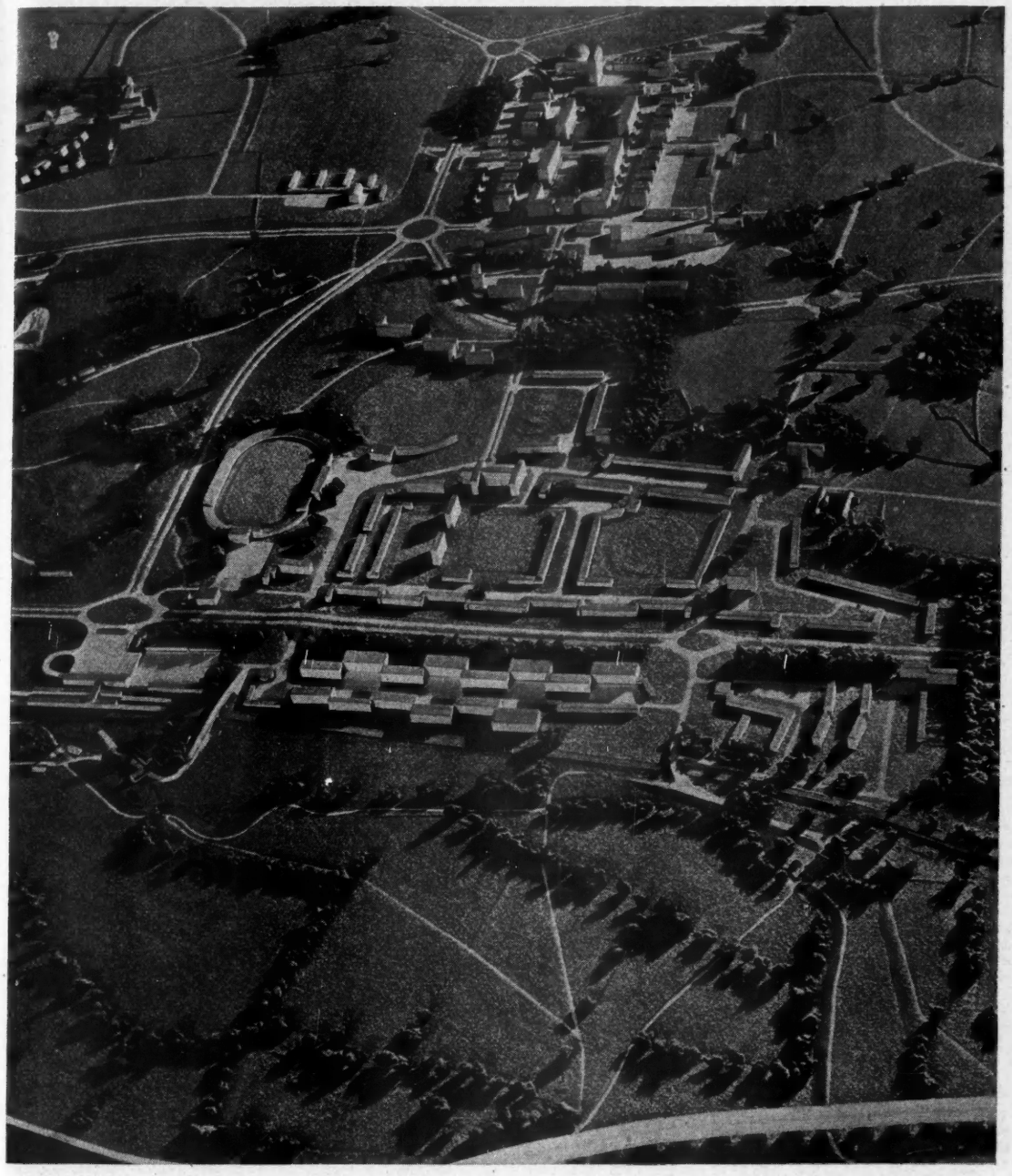
Housing

Thirteen Residential Areas.—Instead of the usual "neighbourhood" planning of six or seven large units, the housing is planned as thirteen small compact units, separated from each other by the existing topography. Each residential area has its own primary school and sub-shopping centre placed inside it, and any part is within easy walking distance of another part.

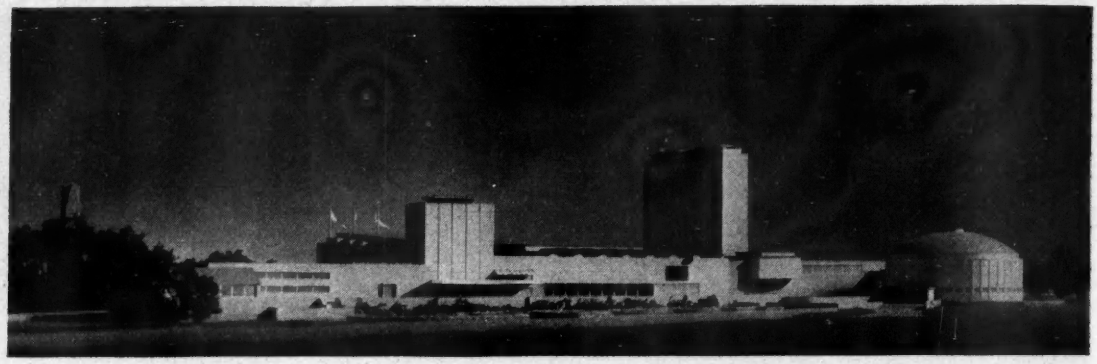
Residential Areas Planned as Clusters.—The existing residential areas at Harlow and Potter Street on the east are expanded to form self-contained units. The new residential areas are planned in four clusters or groups around major centres. One of the major centres is the town centre. The other three are large centres containing shops, cinema, church, library, and other community buildings.

By limiting the number of centres, larger and better buildings than is usual can be placed in them and more sense of urbanity obtained.

Residential Areas Planned into Landscape Structure.—The residential areas are planned into the existing landscape structure. Belts of trees and woods are used



HARLOW NEW TOWN. Design for Town Centre, as seen from the North. In the foreground is the new radial road from London to Cambridge. Beyond is the sports area and at the top of the hill, overlooking the valley, are the Market and Business Buildings. The main shopping streets connect the business area to the Civic Centre, which overlooks the valley to the South. The model is by Partridge.



HARLOW NEW TOWN. A view of the Civic Centre from the South. The Civic Theatre is on the left, the Municipal Offices in the centre and the Civic Hall on the right.

to separate areas from each other, and generally the development is worked into the existing field and hedge pattern. Existing cottages are preserved and incorporated into the design. Existing features such as churches or barns are made focal points in their particular areas.

Independent Foot and Cycle Access from Residential Areas.—The residential areas have foot and cycle access independent of the roads. These lead from the centre of one residential area to another, to industry and to the town centre.

A Definite Landscape Pattern.—A landscape design has been worked out as a definite part of the master plan and not just left as areas of open space. It was felt that the shape, size and relationship of landscape areas were as important as the shape, size and relationship of built-up areas. The landscape is used not only to sub-divide the areas of building but to create a flowing pattern of open space throughout the town.

Agricultural Wedges.—Agricultural land on the east and on the west is brought right into the area of the town, the farm units being preserved. The two agricultural wedges are linked together by the existing valley and stream running across the centre of the site. The Hertfordshire hills in the north are connected to the centre of the town by a new town park of the nature of St. James's Park.

Playing Fields as Part of Landscape.—In order that the landscape areas shall be broad in treatment, sports fields and the senior schools are planned as part of the landscape pattern and not in the centre of building groups.

Town Centre

Central Area built up between Woods to dominate Town.—The town centre consists of a residential and sports area built up between woods from the river valley to the top of a hill where the main business, shopping and civic centres dominate the valleys lying on the north and south and the rest of the town. The plan form of the centre is a cellular one, the area being built up as a series of inter-related spaces formed by the grouping of the different kinds of building.

The areas are linked together by a road system giving access to all buildings and to a car-park. There is, therefore, a precinctual system without dead areas and with no restriction on motoring. The town centre roads are quite independent of the main road system, and are, therefore, kept free of buses, heavy and through traffic. Both the central area roads and the main town roads converge on the station, where the different types of traffic are sorted out by means of the two-level planning of the station forecourt.

An Expanding Centre.—The main centre on top of the hills lies at the side of the main traffic road so that it can expand on the opposite side. The centre of the town is not, therefore, confined by the predetermined limitations of a ring road, but can grow as the needs of the town are discovered.

Town Park Part of Town Centre.—The lower northern slopes between the woods consist of a town park on the east and the sports area on the west, the two areas being fused into each other. A large lake is formed in the park for boating and fishing, and an open-air theatre is proposed in a disused quarry. But the area itself is intended primarily for quiet walks and contemplation—it is not a place for vigorous exercise.

Sports Area as a Series of Closes.—The sports area itself is broken down by terrace houses, flats and other buildings to form a series of sports grounds. Thus, instead of the depressing effect of acre upon acre of goal-posts and struggling athletes, there would be a series of individually designed areas, each with its own character and with buildings related to and in scale with the open space.

Parallel Shopping Streets.—The core of the main shopping centre consists of parallel streets with a pedestrian way, upon which is located the main bus stop, cutting through the centre of them at right angles. As parking areas and surface roads are large and never attractive, they are planned so that they are enclosed by buildings.

The large-scale stores and shops would be sited on the main shopping streets, and cars would be allowed to drive up to the buildings to set down passengers. It is fashionable to suggest that all traffic should be excluded from the shopping streets, but there is no evidence that either the public or the shopkeeper approve.

On the pedestrian way leading from the bus stop to the heart of the shopping centre would be placed the small and intimate shops. The main shopping streets are limited in length as a long street is wearisome. At each end they expand into squares or closes to give a spatial contrast, those to the north being the market and business squares, and those on the south the civic and administrative squares.

Civic Grouping at Junction of Main Radial Roads.—The town's civic group overlooks the valley to the south at the junction of the main radial roads. In this position it is a focus for the surrounding areas. The buildings are grouped round a series of inter-related squares, the south side of which is merged into the valley by a formal garden, the north extending into the shopping area.

The squares are arranged so that the administrative and cultural activities overlap. In this way there is always something going on in the centre, and there are no dead areas such as one gets in towns where an isolated town hall closes down on Sundays.

The buildings are arranged to form three principal squares, but in a sense these squares may be regarded as one large square broken down by buildings to form three volumes of different shape and size. There is thus a sense both of grand scale and intimacy. Furthermore, as the squares extend into the main shopping streets and open on to the landscape by way of a formal garden to the south, there is a sense of enclosure contrasted by long axial and diagonal views.

This inter-relationship of different-shaped squares is contrary to the so-called traditional symmetrical planning; contrary, too, to the so-called modern open planning with its streamlined buildings widely spaced in vast, draughty areas, enlivened only by traffic fly-overs.

THE OUTLINE SCHEME REVIEWED

HARLOW is a typical small Essex town on the Hertfordshire border, carrying its successive waves of prosperity and depression written large in its bricks and mortar. Some fine sixteenth-century oak-framed buildings still delight the eye, although much abused; some Queen Anne period work has escaped with better treatment, but a century or so ago the Regency spurt in building resulted in the usual grafting of bow windows and the like in place of stout Tudor-oak. A "late" doorway with elaborate ornament catches the eye; but too much rural building is spoiled by more modern mediocre trash and it is restful to the eye to alight upon the new Post Office in good, honest, red brick. Here and there some thatched roofs remain.

Is it too much to hope that with ordered planning of the new Harlow some attention may be given to restore some of the old town's former beauty?

The approach to the planning of the Harlow new town has been cautious and local interests, official and unofficial, have been consulted by the Development Corporation, whose local headquarters are at Seeleys, in London-road. Very wisely, detailed layouts of individual blocks of houses, also their design, have been left out of the "Master Plan" which, in an exhibition at the Drill Hall, Old-road, Harlow, was presented to the public on Saturday, December 6. A public exposition was given by the architect, Mr. Frederick Gibberd, F.R.I.B.A., A.M.T.P.I., on Saturday last. Mr. Gibberd has been ably assisted in the detailed planning by Mr. Robert Banks, A.R.I.B.A., A.A.Dip. The master plan has already passed through ministerial fires of criticism, and, at the opening of

the exhibition, the chairman of the Development Corporation, Sir Ernest Gowers, G.B.E., K.C.B., read a letter expressing good wishes from Mr. Lewis Silkin, M.P., in which he dealt with the present situation and Governmental proposals which indicated that the initial services and site engineering might be started, so that building operations would be possible in 1949.

In studying the master plan it is evident that real pains have been taken to avoid some of the mistakes made in so much development nearer London. For instance, too many houses have in the past been huddled in the cheaper sites at lower levels, natural waterways being culverted in or restricted. In the present case, in gently undulating country such streams and patches of water have been planned as open spaces, leaving vistas of trees and greens watered naturally and most pleasantly. The motif of the planning is rather of the romantic than the formal school; which made English architecture famous over a century ago, and made the owners of the palaces of Russia and the Holy Roman Empire throughout Central Europe justly proud of their "English Gardens" and architecture.

The strictly formal note is concentrated, and rightly so, in the public service buildings of which the town centre is the focal group. These buildings, as also the schools, strike a modernist note and are in cement concrete. Administrative offices, the arts and recreation are all catered for. Whether a ten-storey block is called for in such broad acres is questionable, but this is the exception and is pleasingly placed in relation to the general grouping. The miniature "Albert Hall," too, is architecturally pleasing; one hopes the acoustics and placing of the platform will satisfy the audience: this certainly presents a problem not insurmountable, with modern aids to internal texture and research on this subject; but the plan, one understands, is not final. The theatre, so far as one can judge, should be pleasing and has a properly generous foyer, though the parking space seems hardly adequate, having regard to all the circumstances.

We look in vain for the building for indoor athletics and physical culture. With the English climate this is really important: it should be sited reasonably near the restaurant, and should contain bathing facilities.

The designer has done his best with the civic chapel, but such as I have seen conforming to this architectural treatment, have not, to my mind, been more than "half-baked" functionally. Perhaps a vari-coloured, hand-made Essex briquette interior, and appointments, which answer well to such treatment, with really good pot-metal glass and handwoven hangings, will help. On this last point I have in mind an Essex church, Thaxted, and more than one Essex brickyard; we should not overlook the excellence of this county in the brick and tilemaking tradition down from Roman times, and though there should be much excellent gravel and sand on the Harlow site uplands, clay is the natural material hereabouts, and who has not rejoiced in its centuries-old brick church towers glowing in the sunset?

Shops and Markets

In the interests of the housewife I do not think the site allowed for shops and market nearly large enough, unless, indeed, a monopoly store is contemplated, but perhaps this will foster a healthy link with the Old Town business man, for the housewife's job in life is deadly dull, and any change is an "escape."

Speaking of change, the break-up of light surfaces in texture and colour is most important. For instance, in bright weather the reflected green light from a well-kept lawn helps eyestrain, as well in the market square as in the school classroom. I hope that, where trees must be planted formally, space for reasonably natural growth will be left, though there is a use for the pleched or polled tree—or the trellis or wires, as, for instance, the effective fig screen on the National Portrait Gallery. Quadrant coloured sunblinds and table umbrellas and awnings to shops and open-air cafés should find a place in the colour scheme outside; some good mural painting and carved or modelled surfaces also might be used, and in this field, too, Essex can provide all the craftsmen needed.

I hope brickwork in the new houses, as distinct from the public buildings, will be predominant, with facings of native handmade bricks and with tiled roofs. Wrought iron, simple and effective, is still possible, and rural industries and forges should have a hand in building this rural scheme, in the fashioning of gates, electroliers and the like.

There is, of course, not only a railway station, but also a bus station, which should help in preventing the ever-increasing accident rate in built-up areas.

It is to be hoped that the industries to be provided for in the new town will be adequate, so that residents may eat and live at home rather than in trains, buses and teashops. If such is not the case, New Harlow will have failed in its aims and objects.

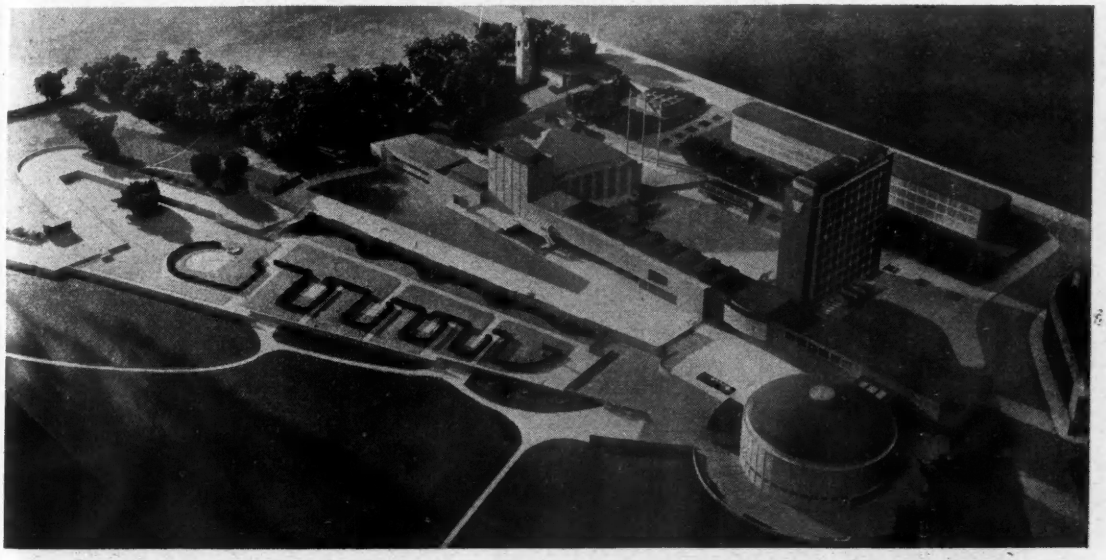
Apart from the "Civic Chapel," where are the sites for the various churches, with ancillary buildings, which every new town should have, placed with as much care as to accessibility as the cinema or theatre?

The County College is well sited, and will admit of a treatment on the lines of Mr. Urwin's layout in Cambridgeshire. I assume a residential block for students will be included, and, of course, provision made for first-year men studying in conjunction with the health centre, which every civilised town centre will embrace. I do not think the centre will be complete without one or two cinemas with television equipment. I should like to see at least two kinds of dormy house or residential club, apart from the students' hostel—one for single people, and one for the elderly. The Ascot area has already well provided these amenities, such as the Princess Marie Louise Club at Sunninghill, which has about a hundred bedrooms for which residents pay and which is administered by the Gentlefolks' Help Committee. Under changing social conditions, such clubs go as far to solve the housing problem as to remove a stigma which no one desires.

For anyone who wishes to study statistics and facts relating to this venture, he will find them fully set out in the publications prepared by the Harlow Development Corporation, 13, Grosvenor-square, W.1.

I greatly admired the sporting way certain old residents in the area, who have for so long enjoyed uninterrupted views over this pleasant countryside, cheerfully accept this threatened invasion.

S. Phillips Dales, F.R.I.B.A.



HARLOW NEW TOWN. The Civic Centre from the South. The chief buildings are arranged to form three inter-related squares—Theatre Square, Civic Square, and Administrative Square. On the South the formal garden merges the Civic Square into the landscaped valley.

The North Front. *Below*: The Garden Front.

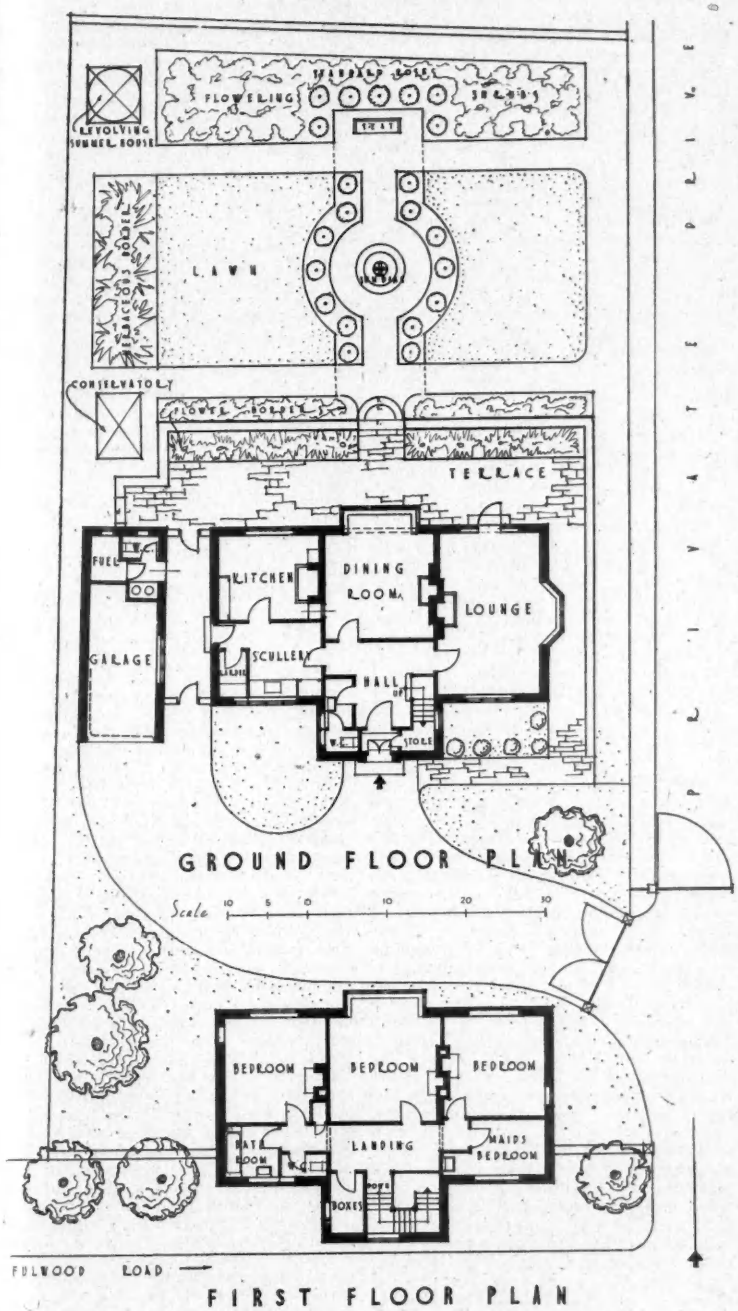
HOUSE IN SHEFFIELD

J. MANSELL JENKINSON, F.R.I.B.A. (CHAPMAN & JENKINSON), ARCHITECT

HOUSE IN SHEFFIELD

COMPLETED IN 1939, THIS HOUSE IN Fulwood-road, Sheffield, was built for Mrs. H. F. Aizlewood of local snecked wall stone with brick lining. The roofs are covered with Caddick's stone-coloured roofing tiles, and the windows have metal casements set in wood frames. The garden was designed by the architect when the plans of the house were being prepared. A cloak-room and w.c. balance the staircase in the spacious hall, the space above the cloakroom at first floor being occupied by a boxroom—a convenience which many modern houses to-day omit. The large lounge has direct access to the terrace overlooking the garden. Upstairs the three principal bedrooms have coal fires, the maid's room being fitted with a wash-basin.

The builder was Mr. E. C. Horton, of Sheffield.



HOUSE IN SHEFFIELD. (See facing page.)

DORSETSHIRE

THIS publication* is one of a series entitled "Vision of England" edited by Clough and Amabel Williams-Ellis and typifies a different form of approach to the subject from that of the normal guide-book. This and other issues of the series, which includes The Black Country, Derbyshire, Cornwall, Hampshire, Norfolk, The Isle of Wight, Northumberland, and Hereford, are by well-known authors, who give their own personal impressions of, and associations with, particular parts of England, in collaboration with various artists and illustrators.

In his introduction to this book on Dorset, Aubrey de Selincourt defines his objective as follows: "There can be no vision without a personal and individual eye, and the fact that the eye happens to be mine is the cause of any oddities or idiosyncrasies which the following pages may contain. Beauty, atmosphere, charm—none of these things are matters of fact, but of interpretation; they come into being as the result of a sort of meeting or communion between the seer and the seen." This becomes clear on reading the book and accounts for the numerous expansions and omissions to which the critic might otherwise object. The result is an impression, which is, from this point of view, of greater value to many than the guide-book schedule based on an assumption of relative importance.

The author's plan has been to take circuits from various starting points and to give his impressions as he moves along of the aspects of nature and the works of man; he does not claim to be an erudite naturalist nor archæologist but he has a keen eye for all around him and a skilled pen to depict characteristic features. In this he is aided by a judiciously selected series of photographs and by sketches not quite equal to these in quality, but chosen to emphasise things the artist felt to be important. A map of the county dated 1610 and one reduced from the present ordnance survey are included.

Dorset, though one of the smaller counties, is exceptionally rich in its scenic beauty and its historical remains. It held an important place in Celtic times as is testified by such outstanding sites as those of Maiden Castle and Badbury Rings as well as numerous minor centres of activity. Dorchester was an important Roman colony and most of its little seaports were utilised in Saxon times when it formed the heart of the kingdom of Wessex; within its boundaries were many mediæval abbeys and priories, several important castles and numerous manor houses of various periods which, with their satellite villages and with the intricate pattern of hill and dale, give strikingly picturesque scenic effects, many of which the descriptions and illustrations in this book enable the reader to visualise.

Colour in Buildings.

THE purpose of external painting on buildings is two-fold: the protection of materials from the weather and to produce an attractive appearance. A booklet recently published by The Georgian Group, 27, Grosvenor-place, S.W.1, deals primarily with the second aspect of external colouring of buildings. The booklet is entitled "Paint, Colourwash and Climbing Plants," and the price is 1s.

* "Dorset" ("Vision of England" series). by Aubrey de Selincourt. London: Paul Elek. Crown 4to. 9s. 6d.

ORIGINALITY IN ITALIAN RENAISSANCE ARCHITECTURE

SELWYN BRINTON LECTURE AT ROYAL SOCIETY OF ARTS

THE principal distinctions between Renaissance architects and their Roman forebears were discussed by PROFESSOR R. A. CORDINGLEY, M.A., F.R.I.B.A., M.T.P.I., when he gave the Selwyn Brinton Lecture, "Originality in Italian Renaissance Architecture," at the Royal Society of Arts on November 26. Mr. W. H. Ansell, M.C., P.-P.R.I.B.A., presided.

We take the following extracts from Professor Cordingley's remarks :—

Italian Renaissance Architecture extended over more than four hundred years —from 1420 to *c.* 1850—and has suffered singular misfortunes of interpretation in the last hundred years.

For convenience of review, the architectural manifestations of the Renaissance need suitable sub-division. The common use of the term, in architectural circles at least, for a part of the whole is to be regretted, but it would be even more confusing here to attempt to substitute a new one. One may accept the "Renaissance" as the precursor of the "Baroque," though not admitting a break of logical development between them. The dates given here are highly generalised, and are stated in round figures. The "Early Renaissance" (1420-1500) was followed by the "High Renaissance" (1500-1550). A stage of "Transition" ensued (1550-1600), and introduced the "High Baroque" (1600-1700) within which lay the culmination of the style, at about 1650. The "Late Baroque" (1700-1750)—wherein there is a trend towards the "Rococo" (a lighter version of the Baroque)—might be taken as the closure of the Renaissance proper, since thereafter the Italian is no longer an important originating source, but reflects instead developments taking place in France and countries elsewhere. The cycle of the movement was not then, however, completed. As in Northern Europe and England, an "Antiquarian" phase, of some complexity, followed (1750-1800), largely classical and tending increasingly towards the "Neo-Grec." The latter, the Neo-Grec, might be embraced roundly in the dates 1800-1850. It was the dominant, though not the exclusive, manifestation throughout the greater part of that time.

The Renaissance masters were actuated almost exclusively by æsthetic ideals. They were most able, too, in constructive science, but this, to them, was a means to the æsthetic end, not an end in itself. Here lies a mighty distinction between them and their Roman forebears, whom they designed to emulate. Old Roman greatness lay in their political and economic system, not, certainly in any decisive way, in their arts.

Thus it could not be artistic guidance which the Renaissance sought of Rome; nor, as can readily be shown, was there much relevance to fifteenth-century need surviving in Roman constructive methods. What the Renaissance masters found in the ruins of Rome was heady, intoxicating inspiration, a formal axial system of disposition and a mine of carven or modelled decorative "novelties" which they might adjust and improve by their superior art craftsmanship, then using them in their own distinctive ways in contemporary buildings with a discretion which far surpassed the ancient Roman.

Even in matters of outward effect, not to speak of inner spatial arrangements and constructive methods, the Renaissance debt to old Rome was but partial. In artistic quality the later architecture was far superior.

To our northern eyes, attuned to a Gothic very different to the Italian kind, the very earliest of the Renaissance churches appear at first sight to have been transformed into classical character with almost miraculous speed and completeness. Yet in such as Brunelleschi's S. Lorenzo (1425) there is very little that is of direct Roman inspiration. The plan and disposition, so far from recurring to the ancient prototypes, are closely similar to those of S. Croce in the same city, a building founded only in 1295; though the later church is much the smaller. Its vaults, such as there are, are light vaults of Byzantine form, with no resemblance whatsoever to the massive coverings the ancients had used, and the preponderating arcades, graceful arches poised on column caps, repeat a motif endlessly reiterated in Tuscan mediæval churches, but of which there are almost no ancient Roman instances. Similar arcades adorn eleventh-century S. Miniato and the Baptistry of the cathedral, both of them revered monuments in the city.

Another Non-Roman Practice

S. Lorenzo's west front is featureless and blank, toothed in brick for a sumptuous marble façade which it never received. Such independent conception of the frontispiece, a concentration of emphasis effected at the expense of the flanks and rear of a church, which, comparatively, remain arid, is another non-Roman practice; not new with the Renaissance by any means, as the elaborate marble "Gothic" frontages of the Siena and Orvieto cathedrals go to show, but one which persisted throughout the Renaissance from first to last. Witness, for example, the absurdly pretentious early-period frontage of the Certosa at Pavia, dated mostly from the end of the fifteenth century, and the late-Baroque Cathedral at Syracuse, of 1728-37.

The easterly parts of S. Lorenzo follow the mediæval traditional arrangements, and among them is a galleried cupola over the "crossing" of the Latin-cross plan. Byzantine influence occasioned this tradition, but it is one to which the Renaissance gave clearer definition. Byzantine inspiration almost exclusively is responsible for the initiation of that second kind of church arrangement to which the Renaissance became heir—that in which the space enclosed is highly centralised beneath a dominant dome, this attended by subservient uniform wings, the whole assuming a "Greek-Cross" (equal-armed) pyramidal disposition. A whole series of chapels and churches of the kind, beginning with Brunelleschi's Pazzi chapel at Florence (1420), extends through the Renaissance to its latter end, beyond the Baroque. The development of the dome, whether for the crossing of the Latin-cross church or for the culmination of the Greek-Cross plan, is the most notable of Renaissance achievements. Gothic modes of light, exquisitely poised structure are wedded to the use of Byzantine constructive devices, and the wedding produces an extensive and comely progeny. The firstfruits are seen not alone in small churches and chapels such as that of the Pazzi, or of S. Maria delle Carceri at Prato, but, too, in the grand monumental dome of Florence Cathedral, Brunelleschi's mightiest and most skilful creation. Here, however, the Byzantine contribution is limited to the fact of the use of the dome as the culminating element, and perhaps, too, the manner of use of ribbed construction. For the rest, in so far as the dome is derivative at all, it is Gothic.

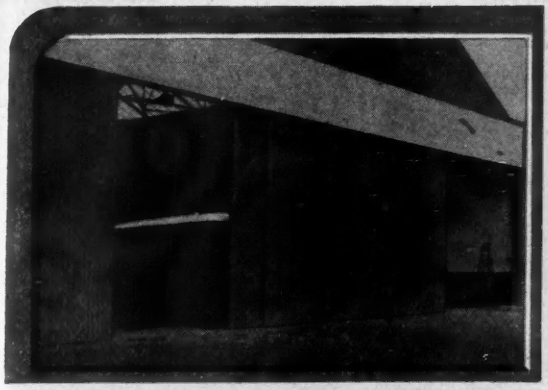
Much false colour has been lent to the circumstances of this structure by the assumption that, because Brunelleschi studied so assiduously among the ruins of Rome, he must have secured key ideas from them. He got none; nothing towards this particular structure except a colossal ambition to equal or outdo the achievements of the ancients. The Pantheon may well have stirred his imagination, but it offered no clue towards the solution of the Florence cathedral problem. The essential principle is entirely different. The Pantheon vault, like all Roman vaults, is massively buttressed; the Florence dome is tied together by bands about its base. This was a wholly new idea which opened up endless avenues for new endeavours in structural design, an idea which was elaborated and exploited to the full by later Renaissance masters. The need for buttressing obviated, or very much minimised, the dome could be raised aloft to allow the insertion of fully adequate windows in a "drum" interposed below it, and the whole could then be exploited for grand external as well as internal visual effect. In other domes, more sightly than Brunelleschi's, the incorporation of further structural devices (pendentives) permitted the use of the domical termination over any kind of regular base plan, not only round or elliptical (for domes even of this shape came to be used), but square, octagonal or rectilinear, too. Due to Brunelleschi's invention, the dome came to be the almost inevitable crowning feature of every church or chapel, and the dominant, and not infrequently the exclusive, form of covering used. The experimental stages of development of this magnificent feature were traversed in the Early and High Renaissance stages of the style; St. Peter's, on the threshold of the Baroque, is the first major instance of thoroughly mature design. Afterwards, Baroque Rome became a city of splendid domes.

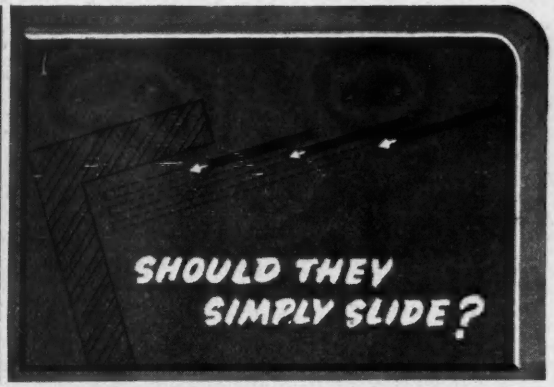
Rustication

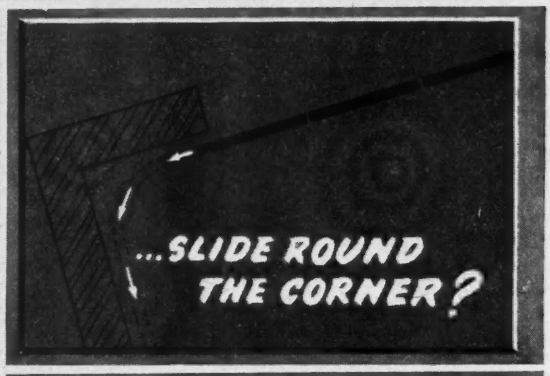
The first onset of the Renaissance produced little outward change in palace design, and at no time do external influences importantly affect the established or developing modes of living or methods of use. On the other hand, mediæval constructive character, protracted into the Renaissance, contributed an initial suggestion for a fresh range of decorative techniques, which thereafter the Renaissance masters infinitely exploited. The new range was that of rustication.

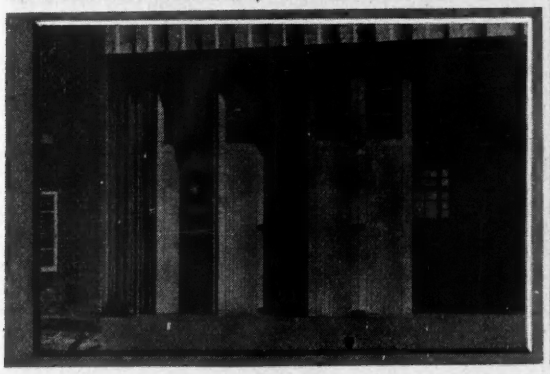
Now there are endless instances of Roman rock-faced masonry, yet these are in no case deliberately designed to be decorative. Renaissance initiative in this direction begins at once, in Florence again, with the first domestic building in the new style—the Riccardi Palace (1430). Every centre in the country in due course developed its local variants; the stones left rough and characterful or bossed and faceted in high artificiality. At first restricted to wall surfaces, rustication soon came to be applied, too, to the Orders themselves. Vignola expanded its range of use to the enframing of masonry panelling and to the embellishment of garden ornaments. In stucco, and in a variety of extravagant forms, it became the dominant decorative motif of the garden grotto and the artificial waterfall and cascade. It invaded the surrounds to windows and doors, and was used even on balustrades, stringmoulds and cornices. In short, rustication took its important place among the Renaissance decorative resources.

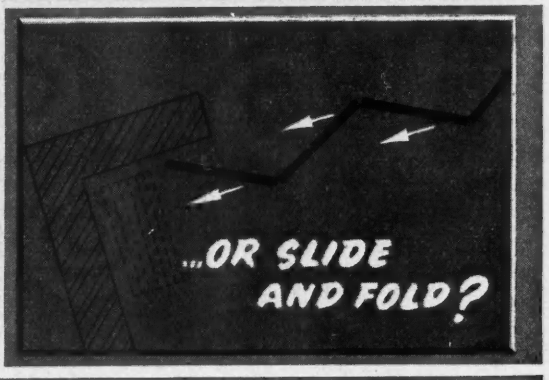
Whilst on the point, another purely











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Renaissance decorative invention may be instanced—that of the baluster. Roman parapets, if not solid, were commonly of palisade character, patterned with interlacings in the panels, imitating wooden prototypes. The Byzantines used these, too, but also developed a distintive practice in which the panel is a carved or pierced slab, supported between posts. Italian mediæval practice varied; in part it followed the Byzantine, but more characteristically, tiny columns of simplified classical design carried miniature arches which, in turn, supported the parapet rails. Both the Italian mediæval usages survived into the Renaissance. By the end of the fifteenth century the older forms of parapet had almost wholly disappeared. The initial simple baluster, symmetrical in its upper and lower halves, soon gave place to the familiar type, weighted heavily in the lower part of the sleeve; but many variants subsequently were invented, especially in the Baroque phase. The progress of balustrade design is a good index of the date of monuments.

The Orders of Architecture

Surprisingly little initiative was shown in ancient Rome in the exploitation of the decorative possibilities of the Orders of Architecture. The arrangements in common use extended little beyond the simplest form of colonnade and arcade, and the combination of the two into that motif most typical of their architecture, the so-called "Roman Order." The Renaissance materially extended the range of standard decorative motifs in regular use. Mostly, the new themes were invented afresh; for all that, a careful search may disclose an occasional Roman instance of each. Such dubious precedents would very likely be the outcome of accidental and not calculated combinations.

In the first half of the sixteenth century, competence in the modern style had so advanced that architects displayed their facility not alone in the discreet choice and use of the decorative elements, but also in the mass composition of buildings. Roman principles of axiality and formal relationship of parts were now thoroughly ingrained, and, as experience ripened, allowed increasingly of building deliberately for effects preconceived in precise detail. Renaissance architects now were marching fast towards emancipation from Roman tutelage. Their scrutiny of the ancient ruins for novel details and ideas had become steadily more systematic, if less serious, and we can see in the architecture of the day that many fresh borrowings were made at this time. The well, however, was nearly dry, and by mid-century there were already some architects who had turned their backs on Roman art, confident now in their powers and competent to make original experiments. After more than a hundred years, the attitude towards ancient art had changed from respectful deference to tolerant patronage. Interest in it lay more with the connoisseur and collector than with the artist and architect.

It is true, of course, that the face of Renaissance architecture was never more like the Roman than at this mid-sixteenth century time. Since the borrowings of ancient motifs were cumulative, and ceased very soon, the point is obvious. Yet in general the likeness was ever now quite slight and certainly has not the significance usually attached to it. The kinship was less, not more strong than before. In the essentials of spatial organisation and structural method, the two architectures were at no time particularly close, and never more so than at the outset. The trend thereafter is increasingly divergent. The cause of the break was incompatibility, increasing naturally as the Renaissance individuality developed. There was no hiatus or violent distortion in the Renaissance growth at this or any other stage. It followed a natural course and achieved a climax in its own right. The greatest debt due to Rome was that for the classic principles of formality; for the rest, as has been shown, certain details were acquired, but they were assimilated, not imitated, digested and transmuted into decorative systems nearly always original in themselves, and always used in distinctive ways.

BUILDING AND PLANNING IN U.S.A.

COMPARISON WITH GREAT BRITAIN

THE approach of the U.S.A. to some of its building and planning problems compared with that of Great Britain was described by Professor W. G. Holford, F.R.I.B.A., M.T.P.I., when he addressed the London County Council Branch of the Association of Building Technicians recently.

In the course of his remarks PROFESSOR HOLFORD said :—

The managerial attitude to public housing in the States is not fundamentally different from the Trade Union attitude. This is not a political meeting, and I do not want to drag in party affiliations, but building productivity is the crux of our problem here, and one must analyse the merits and the disadvantages of the American system in an effort to solve it.

The psychological effect of the money incentive is undoubtedly one of the chief differences between American and British production in the building industry at the present time. Pride in the job, *and in its organisation*, is latent in this country, and in the U.S.A. is exploited to the full. This means (a) high wages and long ladder promotion (wages 100 per cent. up on 1939); (b) interest in mechanisation; (c) greater co-ordination between factory and site organisation.

What of the results? Some of these are terrifying. Stuyvesant Town* and Peter Cooper Village are examples of superb organisation and thoroughly bad social planning. There is also the growing evil of race discrimination, especially by the indirect method of restrictive covenants in privately managed estates. The G.I.s are all thoroughly disillusioned about the ability of public housing to meet their special needs.

The main asset of the American housing industry is still its terrific potential on the production side, its flexibility and openness to new ideas and methods, its capacity to spare something now and then, over and above the utilitarian, to appeal to the imagination and also to sentiment—*e.g.*, the Tennessee Planning Board, the playspaces in Cambridge, the stadia and recreation grounds allied to New York highway improvements, and the use of landscape architects in war-time housing projects.

Commercial Building

This is the field where we are going to lag behind badly, unless we are careful. Commercial building here has no priority, and it is easy to understand the reason why. At the same time, if we are in for a planned economy, every part of the machine, even if it is a small cog, must be kept working. You cannot pump in more fuel in an attempt to get more mileage and altogether neglect the lubrication. There are more office workers to-day than there were in 1914. Whereas space and amenity standards in houses, factories, and even in mine workers' buildings, are going up, office standards are going down. *Complete* lack of competition in new office building is creating fantastic rents (space that was 2s. a square foot in 1939 is sometimes 10s. in the City of London). Even if it is only 1 per cent. of building, some really modern commercial building should be encouraged, if only to raise standards and keep down rent.

The U.S.A. is, of course, at the other extreme: firms change their offices too frequently in most central areas. Rockefeller Centre is being built up and traffic problems are being solved on Cæsarian lines which will create five times as much trouble in a few years' time.

Schemes in the U.S.A. for meeting traffic requirements include: (a) New York's express highways; (b) Chicago's Outer Drive; (c) Los Angeles, Cahuenga Pass Freeways; (d) Pittsburgh Waterfront Express Highway; (e) Detroit Express Highway—in cutting (*vide* A and B Ring in London).

With regard to parking, Chicago has accommodation for 3,500 cars on a lake-front parking plot; San Francisco can accommodate 1,700 cars in a four-storey underground area, built by the city and leased to an agency; Kansas City, 100 cars in each of several small "benefit" districts assessed 80 per cent., while city pays 20 per cent. and parking is free; Oakland, 100 to 150 cars in each of several lots maintained by retailers and business premises—free day-time parking; and Philadelphia, a profitable garage over a retail store for 625 cars.

Subways are doubled for express and stopping trains, an expedient which will probably have to be followed in London—*e.g.*, on the Central, Piccadilly and Northern lines.

Town Planning

Except for resources planning (particularly in the great river valleys), zoning and forward town planning have taken a step backward in recent years. Britain is ahead in compensation and betterment legislation, new towns legislation, control of space (which may lead to decentralisation), preservation of buildings and scenery, central area redevelopment, and industrial estate planning. But it is early to prophesy; America is quicker to judge by results, is less docile, less patient in queues, less politically experienced. Our proposals intrigue them very much, but our performance leaves them as yet unconvinced. Sometimes where we are static the U.S.A. is rushing downhill. Instances of this may be found in the New York City and Regional Plans; the decay of parts of Boston; the growth of slums in Chicago and many mid-western cities. They rely too much on technical invention and too little on administrative ability to get them over unnecessary difficulties, as in the case of East Side, New York—with U.N.O., two hospitals, two schemes of 14,000 and 35,000 dwellings, etc.

The two real remedies are land utilisation and its control; and the control of the quantity of accommodation—neither of which is in good working order in the States.

Prefabrication of large units is killed by (a) high capital risks and (b) differences in State bye-laws, making a standard design impossible nationally. Heating is incomparably better than ours, mainly due to the ubiquity and cheapness of oil, and the high degree of mechanisation.

To sum up, the chief lesson of the American comparison appears to be that although building is not an export, it comes next to food as the most important index of morale, domestic efficiency, standards of living and democracy in action.

* See *The Builder* for November 21, 1947.

THE STATE AND PRIVATE PRACTICE

R.I.C.S. PRESIDENTIAL ADDRESS

Some remarks on the State and private practice were made by Mr. R. W. Trumper in the course of his Presidential Address to the Royal Institution of Chartered Surveyors.

Mr. Trumper, whose address dealt mainly with the agricultural aspects of the surveying profession, said :—

"It may not be out of place to think for a few moments about the supply of professional man-power for Government and private work. For a variety of reasons the State has become the owner of large acreages of land, and it is possible that its ownerships will increase still further. These acres need management, and management requires a large and competent staff. In my belief, the best training ground for that staff is with firms in private practice, particularly if private practitioners and their Government colleagues work closely together. The State may have to consider whether the whole of its estate management work should be done by Civil Service surveyors, or whether a share of it, perhaps half, should not be given to private practitioners. One advantage, if none other, of such a scheme would be that private practice would be kept healthy as a nursery for recruits to the Government service.

"In leaving with you these thoughts on the tasks in front of the State, I am reminded that somewhere in the statutes which govern the Ecclesiastical Commissioners, for whom I am privileged to act, there is a phrase which empowers them to do what may be right 'to make better provision for the cure of souls.' I have found this phrase a great stimulus. The soul of our land is embodied in those who work on it; I would ask the Minister to make better provision for the cure of souls."

Farm Equipment.

On the question of farm equipment the speaker went on to say: Most of our land was equipped and, by the tests and needs of those days, well equipped, in the prosperous times of the last century. Local materials were mostly used for building because transport was difficult and local labour was cheap. So was the cost of maintenance and, likewise, any inconvenience in layout made but little difference with wages at 12s. per week. To-day the problem is different. With the aid of machinery and science and with the transformation of the farm worker from a highly skilled manual worker into an equally highly skilled mechanic who now receives something like a reasonable wage, we are able to produce more from our land with fewer hands. That means that it is wasteful to employ these hands on tasks which would become superfluous with improved equipment and improved lay-out. In the case of dairying areas, the old sheds, known variously as byres, shippons, etc., are, for the most part, incapable of use with modern methods. With new ideas on the cultivation of our land, particularly in the revival of the ley farming, it is becoming increasingly evident that, except in certain parts of the country where there is a light rainfall on a pervious soil, our cattle are more easily and economically managed when they are housed during the winter months. In the arable areas more machinery is required, which means more accommodation for housing machinery, and that, in turn, may cost considerable sums of money. A few facts may be of interest. A good average for a commercial dairy herd ought to be—but I am afraid not very often is—800 gallons per cow per annum. This should give a gross revenue, on the new price scale, of £90 per annum. A standard cowhouse, with its dairy equipment, its silo and its hay-barn as an integrated unit, costs about £70 per cow. At 5 per cent. interest, this equals £3 10s. per annum per cow.

We have, of course, an immense amount to learn yet about the best form of construction and the best methods of housing for dairy buildings. Personally, I like the standard double cowhouse, 33 ft. wide inside. This type of building is easily adaptable for tying cows in stalls or for use as a covered yard, and in either case the milking parlour, if required, can be housed within the framework of the building.

For housing young cattle from a few weeks old up to two and a half years, the semi-covered yard 45 ft. by 60 ft., or 60 ft. by 90 ft., is, to my mind, the ideal building. The cost works out at about £45 per head, which, at 5 per cent. interest, is £2 15s. per head per annum. I find that tenants, particularly the younger ones, are fully alive to the advantages of modern buildings for this purpose. I have recently put up an eighty-cow dairy unit on which the tenant is paying £280 per annum, which is about the value of the milk from three of his cows. It did not take him very long to realise that with a modern building he could recoup this money by running his dairy with two men instead of three, to say nothing of the advantages of feeding in a properly equipped shed.

To quote a few more instances. A hay-barn with bays 15 ft. by 25 ft. by 18 ft. high costs, roughly, £100 per bay, including side sheeting. An annual cost of £5 for housing 20 tons of baled hay is a good deal cheaper proposition than ricking and thatching, to say nothing of the fact that labour diverted to the thatching of ricks at a time when the men are wanted for work on growing crops is uneconomical and expensive.

A suitable shed for housing farm machinery costs, roughly, £2 per square yard covered. A tractor, costing £500, requires about eight square yards to allow room for inspection. A charge of 16s. per annum for housing a valuable machine is not very high.

In studying the 1948 building programme for a certain county, I find that I shall want 130 tons of steel for new dairy equipment, including cowsheds, covered yards and hay-barns. If that programme is carried out, not only can the existing stock be housed under good conditions but 135 more cows can be put into production, 150 more followers can be housed off the land in winter, 100 tons of hay usually spoilt on the top of the ricks can be saved and the labour of seven men dispensed with.

You may think, perhaps, that in these times I am somewhat optimistic in expecting delivery of 130 tons of steel next year, which brings me to the question of the supply of "tools." I would ask that the Minister should, as he did when drafting the Act, call us into consultation, tell us, quite frankly, what his difficulties are and ask us to tell him what we want and why we want it. We not only want materials like steel and cement for farm buildings, but we need steel for farm implements, we want more tractors, grass-cutting and loading machines, machinery for handling silage and dried grass. We want more combines for harvesting our grain; we want more machinery and materials for drying and storing the grain. All these items are essential if we are to maintain our production, let alone increase it. The Minister will find the profession ready and able to help him, and we think that he might help himself considerably by taking us into his confidence.

The Farm Worker.

The speaker went on to say: "This country—and I have no hesitation in saying so—is fortunate in having the best type of agricultural worker in the world. He deserves the best that the other partners—State, owner and occupier—can give him. They must see that he lives and works in good conditions, and that he can be trained to use his art and his skill for his own advantage and that of the country

"The farm worker must have a good house to live in; and that, as we all know, is a commodity in desperately short supply. I estimate that we need 50,000 new or reconditioned farm cottages, of which at least 15,000 must of necessity be tied cottages. Here, I suggest, is an excellent example of how the State-owner-occupier-worker combination might function as a real partnership. Let the State provide the owners with the materials for building these 15,000 cottages, and devote its own attention to the remaining 35,000.

"I do not propose to enter now into the tied *versus* untied cottage controversy. But I do hope that when the new Chief Land Agent makes his periodical tour of the great estate for which he is responsible, he will not confine his conversations to unions and associations. Let him talk, as I am sure he will, with men and women who work on the land. He will learn much thus about where they wish to live and what sort of houses they need. Some will tell him that they like new houses, but many will say that they prefer old houses, properly reconditioned. The possibilities in the way of making old cottages fit for the modern farmworker to live in are great."

Referring, in conclusion, to education matters, the speaker said that during this session a strong and representative sub-committee of the Education Committee had been set up under the chairmanship of Mr. John Watson. That sub-committee was instructed to dig up by the roots the whole of the educational policy of the Institution. The plant was to be thoroughly examined; parts of it might be discarded, new seeds might be sown, and new plants take its place. This was a matter to which he would particularly call the attention of the Junior Organisation. He asked them to study the whole problem of entry into the Institution, the training and teaching of new members, and the maintenance of a high standard of professional knowledge throughout the membership.

Saxon Cathedral to be Restored.

One of England's oldest churches, the seventh-century church of St. Peter on the Wall, Bradwell-on-Sea, Essex, is to be restored. It stands on the sea-wall at a desolate and deserted part of the coast about twenty miles from Chelmsford. Before the Reformation it had a tower and two bells. Later, the tower was used as a lighthouse, and until 1920, when it was re-roofed as a chapel, it had been desecrated and used as a barn or cattle-shed. It was recorded in 1442 that nobody knew when or by whom it was founded. It is now agreed that this is the church used by St. Cedd, the first Bishop of the East Saxons.

L.M.B.A. 75th BIRTHDAY

RECEPTION AT DORCHESTER HOTEL

SPEAKING at the London Master Builders' Association's 75th birthday party, at the Dorchester Hotel, on December 12, Mr. Herbert Morrison, M.P., Lord President of the Council, expressed the opinion that some municipal buildings have lasted too long and outstayed themselves. He considered that many London schools and the Government buildings in Whitehall should be included in this category.

The guest of honour at the party was the Lord Mayor, Alderman Sir Frederick Wells. The Lady Mayoress and Sheriffs of the City of London, Mr. Charles Key, M.P., Minister of Works, Lady Nathan, J.P., Chairman of the L.C.C., the Mayors of some of the London boroughs, and several Members of Parliament, were among the guests. The total company numbered nearly 500.

The guests were welcomed by MR. PHILIP SMALLWOOD, F.I.O.B., President of the London Master Builders' Association, who read a message received from the King and Queen, in which their Majesties congratulated the Association on reaching so notable a landmark in its history and sent their best wishes for its future prosperity. The President went on to say that the fact that the building industry had had no major dispute for over twenty-five years was ample evidence of the cordiality which existed between the employers and the operatives in the industry. He then presented to the principal guests special souvenir editions of "Seventy-five Years On," the history of the Association.

THE LORD MAYOR, responding, said he sincerely hoped the L.M.B.A. would go on for another seventy-five years, carrying on the good work it was doing.

MR. MORRISON, also replying, began by expressing, on behalf of the Minister of Works, who had had to leave early, warm thanks for the co-operation the Ministry of Works and the Minister himself had always received from the L.M.B.A.

The speaker went on to say that trade associations such as the L.M.B.A. were of great importance, for they assisted in increasing the efficiency of industry and helped to promote good relations between employers and employees. It was convenient for the State and for local authorities to be able to deal with trade associations in matters of common interest in a particular industry, and he knew from his experience as a former leader of the London County Council how useful that co-operation could be.

Mr. Morrison continued: "The building industry has not been able to do all that it would wish to do, owing to financial and economic considerations which the Government have to take into account, but it is doing a great work. It is important that the Association on the one hand, and the Federation on the other, actively interest themselves in the promotion of efficiency in the building industry and the speed with which building can be done. Speed is the essence of the matter, for the longer a building takes to build, the longer is that amount of capital unproductive and idle; speeding up building operations is vital, always providing it is consistent with good quality.

"Quality is important, too, and anything that the Association and trade unions can do in co-operation with the research departments of H.M. Government will be greatly appreciated."

It was at this stage that Mr. Morrison made his remarks concerning the longevity of buildings. He said: "I think there is sometimes a fallacy in official building, in that the buildings are often built to last too long. When a municipal building has to be built, municipal officials need to ask themselves seriously not only 'How long can we make the building last?' but also 'What is the outside limit it *ought* to last?'

"It may be that the school buildings we are building to-day will be out of date by A.D. 2,000. In London to-day we have an extraordinary number of schools of the old School Board of London. They constitute a fine testimony to the skill of the Board's architects and of the building industry, but they were built to last too long and they have outstayed themselves. It would have been far better if they had worn out twenty or thirty years ago; the same is the case with many other municipal buildings. The Government buildings in Whitehall are lasting too long—they are too permanent—and it is important that some sense of proportion should be made plain about this. Therefore, I say to municipal architects and engineers, 'Get out of your groove! Don't build these buildings as though they are to last to eternity!' I say this with some degree of hope and optimism—but not much, for the idea seems to be ingrained in many municipal officials that they are building future ancient monuments. All Governmental and municipal officials, and architects in private practice, too, ought to take what I have said to heart."

A vote of thanks to the Lord Mayor was moved by MR. D. C. BURGESS, senior Vice-President of the L.M.B.A., and the RT. HON. SIR A. R. DUNCAN, M.P., C.B.E., LL.D., proposed a vote of thanks to the President.

LORD MAYOR AT L.M.B.A. RECEPTION.

The Lord Mayor, with the Lady Mayoress and Sheriffs, was the guest of honour of the London Master Builders' Association at a reception at the Dorchester Hotel, last Friday, in celebration of its seventy-fifth birthday. In the photograph are seen (left to right): Mr. D. C. Burgess, Mr. Charles Key (Minister of Works), Rt. Hon. Herbert Morrison (Lord President of the Council) and Mrs. Morrison, Mr. Philip Smallwood (President, L.M.B.A.) and Mrs. Smallwood, and the Lord Mayor of London.

A History of the L.M.B.A.

To commemorate the 75th anniversary of the formation of the London Master Builders' Association, a brief history, "Seventy-Five Years On," has been published. It is in three parts, the first dealing with events from the founding of the Association in 1872 until the outbreak of war in 1914; the inter-war years, 1918-39, are covered by the second part, and Part 3 embraces the war period, and brings the story to the present time. Appendices give a list of notable buildings of the period and a list of the Association's presidents.

The publication records the first formal meeting of the Association in December, 1872, in the Freemason's Tavern in Great Queen-street, at which the principal purposes and objects were set forth. Though the intervening years have brought certain alterations and enlargements, the objects of the Association to-day are fundamentally the same as those drawn up 75 years ago.

The chapter covering the 1939-45 war gives a comprehensive picture of the assistance given by the L.M.B.A. to the Government in dealing with war damage and, later, in the preparation for the invasion of Europe. It is recorded how, in this later operation, contracts normally taking two years were finished in nine months; accommodation for 500 persons was handed over in 50 days; 260 emergency hospitals, with beds for 130,000, were erected. Details are also given of the preparations for and construction of Mulberry Harbour, an operation in which L.M.B.A. members played no small part.

The progressive diminution of building labour, both in quantity and in quality, and the vast number of official regulations and restrictions introduced made the war years a difficult period for the Association. Mention is made of the constant series of conferences and discussions which took place between employers and operatives. The satisfactory solution ultimately reached was in accordance with the happy relations existing between the two sides of the industry.

The history makes informative reading and provides are interesting aspect of the development of the building industry in the last three-quarters of a century.

INQUIRY BUREAU

We do not undertake to reply to inquiries concerning proprietary materials. —ED.

Efflorescence on Walls

Q.—I shall be extremely obliged if you could advise me the best way to effect a cure to brick walls under the following conditions :—

The walls are of 9-in. and 4½-in. brickwork, and were originally lime plastered, and the room used in connection with the curing of bacon. This business was discontinued for some years, and the room, which forms part of a large dwelling-house, was prepared for conversion with other rooms into flats. The lime plaster was removed from the walls, the brickwork joints hacked to form a key, and the wall well washed down. Plastering then followed with a finishing of hard wall plaster. The conditions now are that efflorescence appears on the surface in patches, and in some cases the hard wall-plaster has peeled off.

Two 9-in. walls are affected, one external and one internal. The 4½-in. thick walls are all internal. The brick is common brick made from local clay which is recognised as of good brick-making quality. The age of the brick building is in the region of 40-50 years, and lime-mortar has been used, although pointing in cement-mortar has been undertaken on the external face of outside walls. The screeding coat under the hard wall-plaster was in cement and sand, and after examination it does not appear that there is any damp-course in the wall, although in the case of the outside walls the earth was excavated along the foundations some 12 months ago, and it would appear that a lessening of the efflorescence has resulted therefrom.

It occurred to me that the salt used in the curing business which was formerly carried on in this part of the house may have resulted in salt penetrating into the walls. There appears to be comparatively little difference in the amount of efflorescence or peeling which takes place winter or summer.

You may be able to advise some preparation or method of treatment which would overcome this nuisance, as it is a source of considerable annoyance due to the flaking off which takes place almost regularly.

A.—Starting with the root of the trouble, namely, efflorescence, I suggest that the major cause is the absence of a damp-course, and it is quite possible that the walls rest on poor-quality concrete. The remedy is to insert a damp-course at the proper level in relation to the internal walls and floors. If this cannot be considered I suggest cutting out the joints of the brickwork externally rather deeply and rough hacking the walls. Render in two coats with a Portland cement and sand screed, one part Portland cement and two parts washed sand, incorporating a reliable waterproofer according to the manufacturer's instructions; a final or third coat could be a particular proprietary brand of ready mixed water-repelling wall rendering. The process would be the same for the internal 4½-in. walls; these could be subsequently finished with hard wall-plaster. I do not think the salt used would affect the plaster, but the dampness which causes the efflorescence in the brickwork brings about the extrusion of salts.

G. W. H.

[The name of the manufacturer of a suitable waterproofer and water-repelling wall rendering has been forwarded.—ED.]

BOOK REVIEWS

Hill and Redman's Law of Landlord and Tenant. By W. J. Williams, B.A., and Miss M. M. Wells, M.A. (London : Butterworth and Co., Ltd.) Price 5s. 6d., post free.

We have received the first supplement of the above well-known work, which contains all developments in regard to the subject up to July, 1947. This is, of course, the first of the Cumulative Pocket Supplements promised by the editors of the main work. It is worth while recalling that suggestions for matters to be contained in these supplements should be sent to the publishers. This issue contains a number of additional cases, and the addenda to the main volume is suitably arranged by the use of key numbers referring to pages of the former. The additional matter, as well as, for example, the inclusion in Division II of certain sections of the Agricultural Act, 1947, which came into force on October 1, 1947, has the effect of bringing the whole subject of landlord and tenant as much up-to-date as is possible in any legal text-book.

Building Science. By R. R. Butler. (The English Universities Press, Ltd.) Price 6s. 6d.

This book is thoroughly recommended to any student in Junior Technical Schools of Building. It covers all the groundwork of building science, and paves the way for a wider understanding of the technical problems in building.

Planning: The Architect's Handbook. By E. and O. E. Fifth Edition (London : Iliffe and Sons, Ltd.) £1 2s. post free.

This first post-war edition has been revised throughout to bring it into line with present conditions—*e.g.*, the fact that priority is now centred mainly on housing, schools and factories. New sections have been added and others entirely rewritten—housing, community centres, schools, public-houses, and so on. The section on farm buildings has been likewise brought up to date, to fit in with the new outlook on agriculture, by its original author, Edwin Gunn, A.R.I.B.A. The book is divided into 30 sections for ease of reference—and has a complete index.

BOOKS RECEIVED

THE SMALL HOUSE TODAY AND TOMORROW. By Arnold Whittick. (London : Crosby Lockwood and Sons Ltd.) Price 15s.

THE NEIGHBOURHOOD UNIT PLAN. Its Spread and Acceptance. Compiled by James Dahir. (New York : Russell Sage Foundation.) Price $1.00.

THE BOMBED BUILDINGS OF BRITAIN. Second and enlarged edition, 1940-45. Edited by J. M. Richards, with notes by John Summerson. (London : The Architectural Press.) Price 25s. net.

UNIT HEATERS. By Stan. E. Nelson, B.A. (Manchester : Emmott and Co., Ltd.) Price 1s. 6d.

CONSTRUCTION AND MAINTENANCE OF BUILDINGS. By J. Otway Cave and Russell A. Earthrowl. (London : The Estates Gazette, Ltd.) Price 33s. 8d., post free.

SOLID AND FIBROUS PLASTERING. By W. Verrall. (Surrey : The Technical Press, Ltd.) Price 15s. net.

ELECTRICAL INSTALLATION RULES AND TABLES. Fourth Edition. By W. S. Ibbetson. (London : E. and F. N. Spon, Ltd.) Price 7s. 6d.

IN PARLIAMENT

Belgian Bricks.

In reply to Mr. G. Cooper, MR. KEY said that during 1946 approximately 50 million English size bricks and 8 million Belgian size bricks were imported from Belgium. During the first eight months of 1947 a further 40 million English size and 4½ million Belgian size were imported. The prices of these bricks were 50s. per 1,000 for Belgian sizes, and from 68s. to 70s. 3d. per 1,000 for English sizes, f.o.b. Antwerp. The contracts under which these imports were made were completed in August last and no further Government contracts were in contemplation.

Cement for Belgium.

MR. J. MORRISON asked the President of the Board of Trade how much cement had been exported to Belgium since July 1, 1947, and at what average price per ton; and how much cement had been imported from Belgium and at what average price per ton since July 1, 1947.

MR. H. WILSON said that the quantity of cement exported to Belgium during the months July to September was 93 tons at an average value of £19 a ton; the quantity imported from Belgium in the same period was 3,738 tons at an average value of £6 a ton.

Building Materials.

MR. WALKER-SMITH asked the Minister of Works why no provision was made in Control of Building Materials (No. 1) Order, 1947, such as existed in its predecessor, for emergency supplies of small quantities of controlled materials for essential work such as the repair of broken windows or lavatory pans.

MR. KEY said that Article 4 of the Order made provision for emergency supplies and the procedure under the Order had recently been simplified so that small quantities of certain goods could now be obtained for emergency use without any formality whatever.

Asbestos Sheeting.

Replying to Mr. York, MR. KEY said that there had been no decrease in the production of corrugated asbestos cement sheeting during 1947. Agricultural requirements were given special attention, and particulars of any urgent shortages could be given to his Regional Officers.

MR. STOKES asked the Minister of Works why it was decided to purchase 422 excavators from the United States of America rather than have them built under the control of the C.C.C. in Germany, thereby saving dollars.

MR. KEY said that the excavators purchased from the U.S.A. by his department on behalf of Ministry of Fuel and Power and other departments were required with the utmost urgency and in substantial numbers. In view of the shortage of fuel and steel there was no possibility of obtaining these excavators from German manufacture in the time.

Factory Construction.

MR. D. J. WILLIAMS asked the President of the Board of Trade what representations he had received from the National Federation of Building Trade Employers on the subject of factory construction in the development areas; if any negotiations had taken place on this matter; what was the outcome of these negotiations; and if any decisions had been reached regarding factory construction in the South Wales Development Area.

MR. H. WILSON said that the Minister of Works was in close touch with both sides of the building industry about the effects of the reduction of the Capital Investments Programme, though there had been no discussions specifically on factory building in Development Areas. As a result of this reduction, the whole building programme was at present being reviewed, but any factories in Development Areas at the steel erection stage or later would certainly be completed.

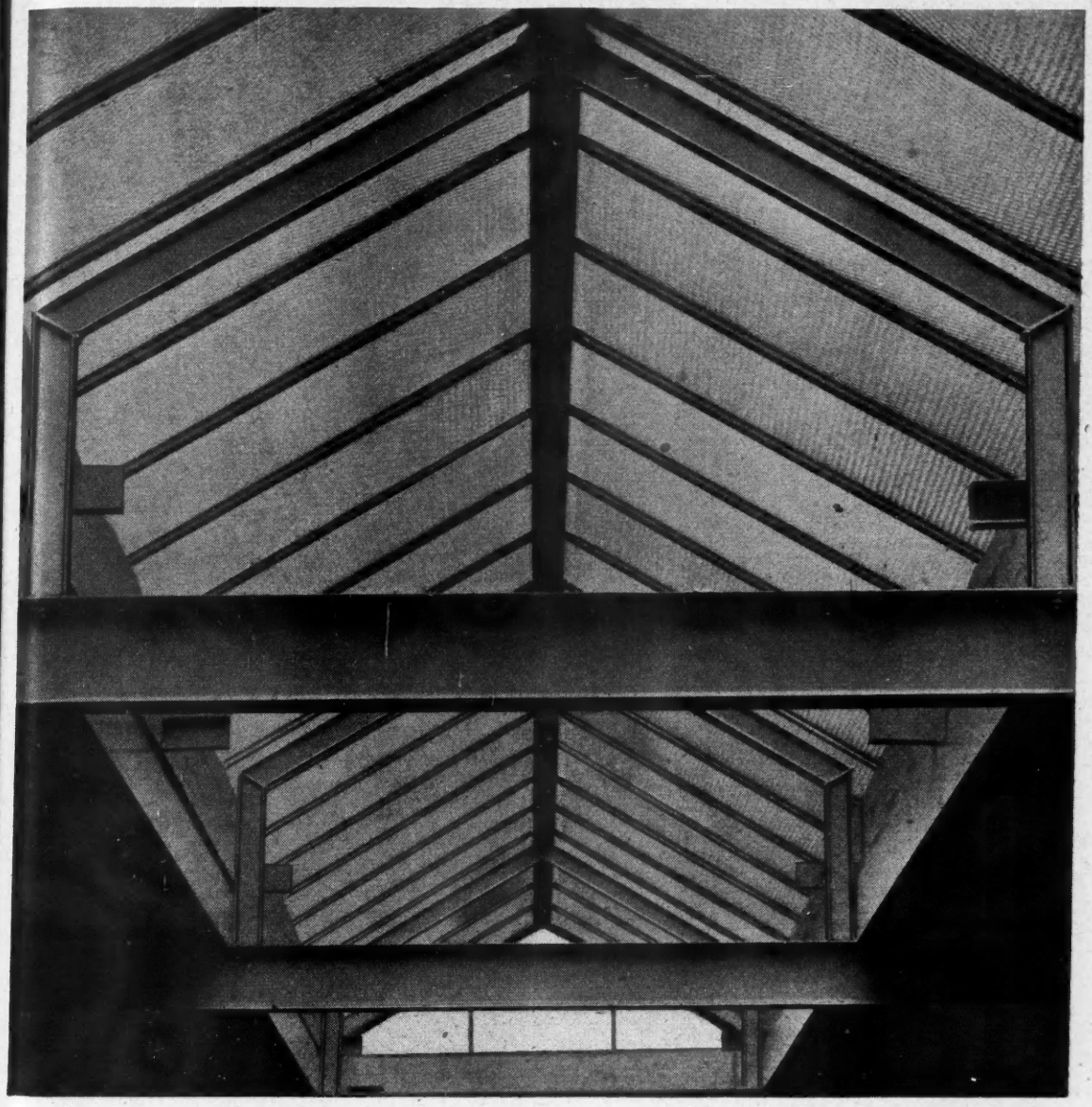
Service Huts.

MR. RENTON asked the Minister of Health what steps he intended to take, in view of the length of time that the housing shortage was likely to continue, in order to adapt as many former service huts as possible for temporary civilian accommodation.

MR. BEVAN said that arrangements already existed whereby service huts not required for an overriding Government purpose could, where suitable, be adapted and used for housing.

Timber Supplies.

MR. RENTON asked the Minister of Health to what extent it had been his policy, during the past six months, to build up stocks of timber, even at the expense of forbidding its issue for the completion of houses already well advanced in construction; whether he would give an assurance that all timber required for the completion of houses already started would be issued; whether he was aware that builders in



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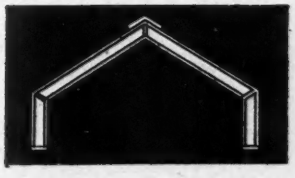

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the Huntingdon district were unable to proceed with the completion of partly built houses owing to the failure of his department to grant licences for timber, which was already available in a timber yard at Earith, Hunts; and whether he would take steps to have such timber released without further delay for the completion of houses now under construction.

MR. BEVAN said that arrangements had been made for the issue of licences for timber to meet the current necessary requirements of the housing programme.

Repair Licences.

MR. RANDALL asked the Minister of Health what policy was followed by his department in dealing with local authorities who authorise building repair licences in excess of the standards.

MR. BEVAN said that guidance was given by means of circulars or regional conferences, and local authorities normally accepted and carried out the policy laid down. Any case of difficulty would be dealt with in the light of the particular circumstances.

Rent Restriction Acts.

MR. E. FLETCHER asked the Minister of Health whether, in view of the difficulty of implementing at an early date, the provision of the Ridley Committee on Rent Control, he would introduce legislation to consolidate the law at present contained in nine Rent Restriction Acts.

MR. BEVAN said that the advantage to be derived from a consolidating measure at the present stage would not be commensurate with the time and labour involved in its preparation, and he thought it better to wait until the Acts could be amended.

Aluminium Houses.

MR. HOLLIS asked whether the cost of £1,610 for aluminium houses included the cost of land, roads, drainage and architects' and surveyors' services.

MR. KEY, Minister of Works, said that the estimate of £1,610 was exclusive of expenditure by local authorities on acquiring the site, constructing roads and sewers and bringing in the main electricity, gas and water services. It included expenditure by the Ministry of Works on site works within the curtilage of the houses, such as the construction of foundation slabs, paths and fencing and the laying of drains, water, gas and electricity services to the point of junction with the main services.

MR. KEY, in reply to Mr. Hollis, said that the current estimated cost of the Arcon house, including structure, fittings, erection and all site work within the curtilage of the house, was about £1,243.

SIR WALDRON SMITHERS asked the Minister of Health if he would consider stopping the erection of temporary houses at £1,610, and concentrate on building permanent houses at about £1,300.

MR. BEVAN said that no orders for temporary houses had been placed since October, 1945. The scheme for the provision of temporary aluminium bungalows would cease when the present contracts terminated next April.

WILLISTON THE S.M.M.

A NEW publication, "Revisions to the Standard Method of Measurement of Building Works," by A. J. Willis, F.R.I.C.S., has been written primarily in order to bridge the period until conditions allow of the production of a revised edition of the "Standard Method of Measurement." Not only will it be of use to those who wish to obtain a clear indication of the amendments in a new edition of the S.M.M., very largely identical in text and set-up with the 1935 edition, but it will be invaluable to students starting their courses for the 1949 examinations of the Royal Institution of Chartered Surveyors. The book will be available on January 1 at the price of 2s. 6d. The publishers are Crosby, Lockwood & Son, Ltd., 20, Tudor-street, London, E.C.4.

Church of St. Mary the Virgin, Oxford.

The roof of this church, illustrated in our issue of November 7, was carried out with three-layer roofing finished with ½-in. macadam. Though described as "temporary," this specification is, in fact, a permanent roof covering and one which the makers, the Standard Flat Roofing Co., Ltd., guarantee for 20 years, although in their practical experience this type of roof will last many years beyond the guaranteed period.

ELECTRICITY CABLES FOR SMALL HOUSES

STANDARD CODE OF PRACTICE

THE Codes of Practice Committee has issued, in final form, British Standard Codes of Practice 322.101, "Provision of Electricity Service Cables for Small Houses." The code was prepared on behalf of the Codes of Practice Committee by a committee convened by the Institution of Electrical Engineers, and it is the first electrical code, in the "Installation of Services" series, to be published in final form. The code was issued as a draft for both general and professional comment, and all comments and views which were received have been taken into consideration in the preparation of the final version now published. The code should be read in conjunction with draft codes 321, "Electrical Installations (General)" and 321.101, "Choice, Installation and Maintenance of Electric Wiring Systems (for Power Lighting or Heating Circuits) in Buildings," both of which (bearing the earlier code numbers 3.6 and 3.63) have already been published for comment under reference CP(B)625 and CP(B)627 respectively.

The draft code deals with the provisions to be made for service cables, from underground or overhead distribution systems, to small houses which are designed as single family dwellings and where the maximum continuous demand is not expected to exceed 60 amp. (14.4 kw. at 240 volts). It makes recommendations regarding the size, protection and laying of the service cable for underground distribution systems. Suitable methods of running the service cable from the cable entry to the consumer supply control are described and illustrated. In the case of overhead distributing systems advice is given on overhead span conductors from distribution poles, their fixtures at the point of attachment to the consumer supply control position.

In accordance with the normal practice, revision of the code will, if necessary, be undertaken within a period of five years. Copies of the code may be obtained from the British Standards Institution, 28, Victoria-street, London, S.W.1, price 1s., post free, reference number CP 322.101 (1947).

DURABILITY IN BUILDINGS

BRITISH STANDARD CODE OF PRACTICE

THE Codes of Practice Committee has issued, as a draft for comment, Chapter IX "Durability," of the Code of Functional Requirements of Buildings.

This draft chapter deals generally with the steps to be taken in order to achieve the required durability in buildings. It sets out the various agencies which cause deterioration of materials used in buildings and their installations, and gives details of the harmful action of those agencies.

The particular effects of deteriorating agencies upon the chief materials employed in construction are analysed, and recommendations are made concerning the appropriate protection and preservative treatments to be applied. Attention is drawn to the harmful effects of the association or proximity of certain materials, and particulars of the corrective measures to be taken are given. The draft chapter also includes classifications (*a*) of water supplies in relation to their effect upon metals, (*b*) of ground water and soils in relation to their effect upon concrete, and (*c*) of atmospheric pollution conditions.

Tables are included which conveniently set out details regarding the protection of metals and the precautionary measures recommended in the use of concrete.

Comments are invited and will be welcomed by the Codes of Practice Committee. They should be forwarded by January 5, 1948. It is to be observed that the chapter is in draft, and is subject to amendment before final publication. Copies of the draft chapter may be obtained from the British Standards Institution, 28, Victoria-street, S.W.1. Reference No. C.P. (B) 667, price 2s. post free.

TIMBER AND THE FUTURE

THE inconveniences the country is now experiencing, in respect of reconstruction and normal development, as a result of the timber shortage, are referred to in the recently published 27th Annual Report of the Forestry Commissioners (H.M. Stationery Office, price 1s. 3d. net). The Report states that in view of great destruction incurred during the war reliance cannot be placed on immediate and sustained supplies from the Baltic, and therefore we can only look to Canada, Newfoundland and the U.S.A. for increased supplies in the immediate future. At the moment our woodlands are still being relied on to make the major contribution to national needs and it is anticipated that the Dedication Scheme will ensure that good silviculture will be practised by owners of private woodlands, and the continuation of the war-time system of licensing fellings will secure that the inadequate reserve of standing timber is properly conserved.

The Report also contains the Planting Programme of the National Forest Policy. It is estimated that this scheme, which includes the contribution of private owners, will result in the planting of an area of 365,000 acres during the next five years.

B.O.C. £100 Welding Prize.

The Council of the Institute of Welding have accepted the offer of the British Oxygen Company, Ltd., to provide a prize of £100 a year for three years, to be known as the B.O.C. Welding Prize, and to be awarded for a paper submitted by a member of the Institute on some aspects of gas welding. The terms of the competition, which are to be drawn up by the Institute, will be announced shortly. The Council of the Institute have awarded the Sir William J. Larke Medal and a Prize of £50 to Mr. J. Corston MacKain, A.M.I.Struct.E., A.M.Inst.W., of Edinburgh, for a paper on the evolution of welded components in house construction and welded bunkers for power houses.

Railway Extensions in North-East London.

Mr. Alfred Barnes, Minister of Transport, opened the new £3,000,000 Central Line tube extension from Leytonstone to Newbury Park and Woodford on December 12. The extended line, which opened for passenger traffic on December 14, will make a valuable and much-needed contribution to the passenger facilities in this area of north-east London. Seven new stations have been built, those at Woodford, South Woodford and Snaresbrook being on the existing L.N.E.R. tracks, which have been electrified, and those at Wanstead, Redbridge, Gants Hill and Newbury Park being in tube tunnels which were constructed before the war and used during the war as a five-mile-long factory. Gants Hill station, entirely underground, is on the key traffic roundabout of Eastern- and Woodford-avenues and Cranbrook-road. The station has been designed and built so that at the foot of the escalators the landing and the first part of the platforms make up one lofty concourse. The finishing stages of the construction work are still in progress.

CONSTRUCTION OF HOUSES BY DIRECT LABOUR

A PAPER READ TO THE NATIONAL HOUSING & PLANNING CONFERENCE

A BRIEF assessment of the usefulness of direct labour in assisting in the solution of the problems of building houses quickly and economically was made by MR. GRANVILLE BERRY, A.M.Inst.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Preston, when he addressed the National Housing and Planning Conference at Harrogate on November 29. Following is a summary of Mr. Berry's remarks :—

It was during the years between 1930 and 1939 that direct labour began to make a real contribution to the housing problem, and during 1931 to 1935, 23,942 houses were built by some 70 authorities in England and Wales. In the following four years ended March 31, 1939, the number completed rose by 75 per cent., an average number of 10,526 houses being completed each year. Ninety-eight local authorities had commenced direct building by 1939.

Since the recommencement of housing following World War II, there has been a very large increase in the numbers of authorities building by direct labour, due largely to the desire to create improved standards of construction that would be reflected in lower maintenance costs, and as a result of the wider conception that is now taken of the duties and responsibilities of local housing authorities.

It would be invidious of me to seek to compare the relative advantages and disadvantages of direct labour and contract at a time when both are making a real contribution to the solution of the housing problem, and I have, therefore, contented myself with merely restating some of the claims usually made by authorities employing direct labour.

The main advantages claimed for building by direct labour are as follows :—

(1) Less time is spent on the preparation of plans, specifications, bills of quantities and other contract documents.
(2) It avoids a delay of several weeks that arises when tenders are advertised for, and so results in an earlier start being made.
(3) There is not the necessity to employ special clerks-of-works to supervise the work and, less demand is made on the quantity surveyors.
(4) It employs local men under better conditions than are otherwise possible.
(5) It gives complete control over selection and purchase of all materials used.
(6) It leads to better standards of workmanship and consequently reduces the costs of maintenance.
(7) Sub-letting and the delays and difficulties that frequently arise from lack of co-ordination between the various trades are largely avoided.
(8) It facilitates changes in methods and materials of construction during the progress of the work without a variation in the price having to be negotiated.
(9) Any savings in cost accrue to the local authority and have the effect of reducing the capital cost of the work.

Factors Affecting Direct Labour Organisations

During the last few years various attempts have been made to give guidance to local authorities on direct labour building, and in a report submitted in 1944 to the Minister of Works on the "Placing and Management of Building Contracts," it was indicated that there are good reasons for the view that the success or otherwise of a direct labour organisation and its efficiency in comparison with work carried out under the fixed price contract system (if such does, in fact, to-day exist) depends very largely upon :—

(*a*) The personality of the officers in charge of the organisation.
(*b*) The character and continuity of the works to be undertaken.
(*c*) The efficiency of the costing and accountancy system employed, and
(*d*) The avoidance of all interference by members of the authority with the site control necessary to ensure satisfactory output of labour.

This report has been followed up within the last few months by a memorandum issued by the Ministry of Health embodying suggestions to those local authorities who are considering setting up a direct labour organisation or who already have a small organisation which they wish to expand and use on housing work.

Briefly, these may be summarised as follows :—

(1) A competent managing staff should be appointed under the control of a responsible senior official as director.
(2) The director of the organisation must be as free as a private builder to select the staff, order materials and equipment and engage and discharge labour solely on grounds of efficiency.
(3) Works should be confined to repetition jobs—housing being the most suitable for a direct labour organisation.
(4) Costing should be thorough and detailed so that any extravagance or slackness can be at once detected and the local authority can ensure that all proper costs and overheads are detected.
(5) A direct labour department must tender in competition with contractors at the same time and under identical conditions, and only obtain the contract if the tender is as low as that of any good contractor.

All the above-mentioned factors do play an important part in building up a successful direct labour organisation, and to them I would add certain other conditions which, in my experience, are essential to ensure success :—

(1) There shall be a guarantee of continuity of employment both for the organisation and the men employed.
(2) The organisation shall also be responsible for the carrying out of repairs to corporation houses and other properties.
(3) The workmen employed shall treat it as their own "firm" and work accordingly.
(4) A well laid out depot shall be provided in the case of the larger organisations with facilities for the manufacture of prepared joinery, etc.

Competitive Tenders for Direct Labour

The suggestion made in the Ministry's Memorandum that a direct labour department shall tender in competition with local contractors may not at first appear unreasonable, although it takes out of the hands of the local authority the decision as to which system is most suited to local needs, and by delaying the start of the work anything from 10 to 15 weeks largely destroys some of the biggest advantages that direct labour has to offer.

The direct labour department and the contractor can in practice never tender under identical conditions, and while a good contractor does not expect to get every job for which he tenders, the whole existence of the direct labour organisation and the continuity of employment of its

PREFABRICATED SLATED ROOF PANEL. Seen above is the "Arvon" method of roofing, using panels of slates of small size, invented by Mr. W. Evans, of Penygroes, Caernarvonshire, and developed by the M.O.W. Scientific Department. This method, which has been demonstrated in the Manchester area, makes use of small slates reclaimed from quarry waste. A frame of slats of wood is made in a simple jig, and seventeen slates nailed on to this form a panel which is fitted into position on the roof. A key slate, joining adjacent panels, is made secure. Advantages claimed for the method are that it makes use of a cheap and additional source of material of satisfactory quality and that there is less roof-work for the slaters, who in bad weather can occupy their time under cover making panels. It has been shown that including the time for making the panels, 100 square feet of roof could be covered in three hours twenty minutes, as compared with a normal time of about six hours. Manchester Housing Department is to roof two houses by this method in order to show the result under normal conditions.

workmen then becomes dependent on it always submitting the lowest tender.

For a large number of years, competitive tenders have not been required of local authorities seeking to carry out housing, roads and sewers with their own workmen, and the result has been that they have built up efficient organisations that can attract the best class of workman and provide him with continuity of employment.

If housing needs are to be fully met, there will be plenty of work to keep both direct labour organisations and contractors fully occupied for some years to come. If direct labour has arrived at the stage when it can be recognised by the Ministry as making an important contribution to the solution of the housing problem, it would not seem unreasonable that, where the organisation already exists, the choice of system to be adopted should be left to the local authority in much the same way as obtains now in regard to the advance preparation of housing sites.

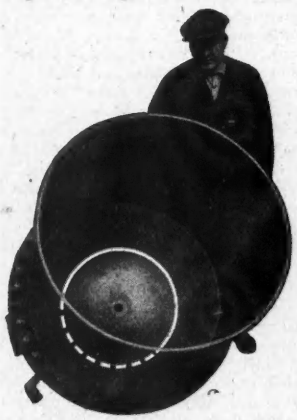
THE VERSATILITY OF WELDING

By C. W. BRETT, M.Inst.W.

FEW branches of industry have had more attention focused upon them than the building trade. The present crisis has still further burdened the position and even restricted the amount of repair work that can be undertaken. Fortunately, this limitation does not apply to the reconditioning of broken, worn or corroded metal parts by scientific welding methods.

Whilst the possibilities of this work are realised to a certain degree, the point that it is desired to emphasise is the rapid advance that has been made in technical development, so that requests regarded as impracticable not long ago have since become little more than routine.

The relative merits of welding and riveting are only just being understood thoroughly. Each meets a particular need, but more and more is the former taking the place of the latter. A first-class example of welding as applied to steel frame buildings is that of the Bank of England, which was erected almost silently, but with great efficiency, because so little riveting was used. In the construction of the new Waterloo Bridge there is an enormous amount of welding. Although external metal work is not in evidence, the reinforcement used in the concrete was very carefully welded. Many of the new building projects planned will embody work of this kind, for it is dependable and low in cost; moreover, there is no need to drill holes and thus create mechanical weakness, which is overcome by using a greater weight of metal.



Cracks sometimes develop in pans and tanks of various types—cast iron, steel and copper. The remedy is a repair by scientific welding. When an area is badly corroded, it can be cut out and a piece of new metal welded in. (By courtesy of Barimar, Ltd.)

Welding in Maintenance.

It is, however, in relation to the maintenance and, to a lesser extent, the modification of existing plant that scientific welding shows to particular advantage.

To rely upon replacement parts being immediately forthcoming is often a forlorn hope. Even when supplies are not seriously delayed, then high cost is another uncompromising aspect. Nowadays it is the speed with which scientific welding can be completed coupled with low cost and absolutely dependable results which make it such a vital factor toward efficiency wherever mechanical equipment is employed.

There is every indication that the position we are facing will deteriorate before it improves. For this reason the utmost must be made of available resources. One important field of immediate usefulness is in regard to the maintenance of building equipment of all kinds. All manner of damaged components can be restored to a condition that is equal to new at an insignificant fraction of the price of replacement when such is the rare position that renewals are readily procurable. Even gear wheels can be made whole again when teeth are broken away and maybe lost. New teeth are built up afresh, and then the wheel is recut with perfect truth.

Broken castings, such as the cylinder blocks of engines operating concrete mixers and other machinery, can be restored with absolute accuracy of alignment and with an additional strength. Even complex repairs can be completed usually within 24 hours.

Within the space of this brief article, it is possible only to make a few suggestions, but the opportunities scientific welding offers are almost infinite; indeed, it is hard to imagine a repair problem which concerns metal parts being insuperable if the latest methods of welding technique are applied.

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INDUSTRIAL LIGHTING EQUIPMENT

DESIGN DETAILS

SOME interesting details on the design of industrial lighting equipment were given by Mr. F. WIDNALL when he addressed a meeting of the Illuminating Engineering Society.

Following is a summary of the speaker's remarks :—

The detailed design of industrial lighting equipment requires the co-ordination of a number of factors, and involves a good deal of compromise between what is theoretically desirable and what is practically obtainable. Constant efforts are made to close the gap between the two, but we still have a long way to go before we can achieve optical accuracy in practical designs at an economic cost for general lighting applications.

One of the problems facing designers today is the correct application of cast iron and aluminium alloys. Formerly, cast iron was the cheapest material to use where it could be applied and, therefore, it was widely used. Aluminium alloys are much lighter and do not rust. In recent months the difficulty of obtaining cast iron has resulted in a decided trend to aluminium and its alloys. The real difficulty with aluminium and its alloys lies in the additional precautions which must be taken when they are used in conjunction with dissimilar metals.

Anodised aluminium reflectors are generally cheaper and easier to manufacture than other types of reflector. They are also easier to handle and are not so easily damaged in transport, although considerable care in packing to avoid scratching the reflecting surface is necessary. Unfortunately, where wetting of the surfaces may occur, corrosion becomes a problem.

Plastic Materials.

Transparent and translucent plastic materials are in their infancy at the moment, but they are being applied and seem to have a great future.

The overheating of fittings is frequently a major problem. The best method of dissipating the heat is to obtain as much natural draught as possible by suitable entries and exits for the air. One point which is not sufficiently understood is that where natural draught only is available wide openings are necessary, and if fins are used it is of no advantage to space them closer than one inch. The idea of the more fins the better dies hard, but close spacing of fins is only of advantage where forced draught is available.

Vibration tests are necessary on a wide range of industrial lighting equipment, which may be mounted on crane gantries, trolley-bus poles, or similar positions where they are subject to all sorts of indeterminate shocks and vibrations. The normal method of test is to use a machine which vibrates an arm over a cycle of frequencies and amplitudes; the equipment under test is rigidly fixed to the vibrating arm.

LAW REPORTS

THE "GREATER HARDSHIP" QUESTION AND RENT RESTRICTION ACT, 1933

COURT OF APPEAL.
Before LORDS JUSTICES SCOTT, ASQUITH and EVERSHED.

Harte and Another v. Frampton.

The question to be decided in this case—whether greater hardship would be caused by granting an order for possession of a bungalow, or by refusing it—came before the Court on the appeal of the plaintiffs, Mrs. L. Harte and her husband, Mr. James Harte, of 19, Cranbrook-road, Upper Parkstone, Dorset, from the decision of Judge Armstrong at Poole County Court, refusing to make an order against the defendant, Mr. W. A. Frampton, for possession of a bungalow in Shirley-road, Parkstone, of which the appellants were the landlords and the defendant the tenant, on the ground that greater hardship would be caused by making the order for possession than by not making one within the meaning of the first schedule to the Rent Restriction Act, 1933.

Lord Justice Asquith, in the course of delivering the judgment of the Court, said that the plaintiffs, or one of them, had let to the defendant the bungalow. The defendant's wife having died, he took to live with him in the bungalow his married daughter, her husband and child. Meanwhile, the plaintiffs were living on the first floor of the house in Cranbrook-road, which one of them owned, the ground floor being let. A doctor advised that Mrs. Harte, for her health's sake, should avoid stairs, and then notice to quit the bungalow was given to the defendant. The present action was then brought against the defendant to recover possession of the bungalow upon the ground that it was required for occupation by the plaintiffs. The defendant's daughter and her husband were not financially dependent on the defendant and the main question to be considered was whether the greater hardship would be caused by granting an order for possession than by refusing to grant it. The County Court Judge took the view that hardship to third persons was relevant and admissible, and said that he had considered the hardship which would be involved if an order were made against the defendant not only to him personally but also to those living with him, though they were not financially dependent upon him. He (the County Court Judge) took the view that hardship was not by the Act limited to any class such as relatives dependent on the party and he accordingly gave judgment for the defendant and dismissed the action.

The Lord Justice, continuing, said that the true view was that the County Court Judge should take into account hardship to all who might be affected by the grant or refusal of an order for possession. In the opinion of the Court, the County Court Judge had come to a right decision and the appeal failed and would be dismissed with costs.

CLAIM FOR FEES BY QUANTITY SURVEYOR

COURT OF APPEAL.
Before LORDS JUSTICES SCOTT, ASQUITH and EVERSHED.

Thornton Hall and Partners v. Wembley Electrical Appliances, Ltd.

In the Court of Appeal of the High Court, Lords Justices Scott, Asquith and Evershed delivered their reserved judgment in an appeal by the Wembley Electrical Appliances, Ltd., of the decision of Judge Neal of the Willesden County Court, in an action in which Thornton Hall and Partners, quantity surveyors, of St. John's Wood High-street, claimed fees for acting as quantity surveyors.

The claim was for £94 for services rendered as quantity surveyors by Mr. Thornton Hall, of the firm in question, to the company.

The appellants' contention was that Mr. Thornton Hall had, in the course of his employment, put himself in a position which was incompatible with his duty to the appellants and, therefore, he had forfeited his right to fees.

The County Court Judge found that this was the case, but he had, nevertheless, awarded the plaintiffs two-thirds of the fees claimed on some kind of *quantum meruit*.

In July, 1944, the premises of the Electrical Co. were bomb-damaged while they were doing war work. It was necessary to repair the premises, and the Raglan Building Co. were engaged to do the work, Thornton Hall and Partners being retained as quantity surveyors. During the progress of the work, Mr. Hall, with the knowledge of the Wembley Co., became managing director of the Building Co. and he therefore occupied that position as well as acting as the Wembley Co.'s quantity surveyors. When a claim was made on the War Damage Commission for the cost of the work, the fees of Mr. Hall were disallowed on the ground that he was managing director of the Building Co.

After legal arguments, the Court dismissed the appeal and made no order as to the costs.

Lord Justice Scott, in giving the judgment of the Court, said it was part of Mr. Hall's duties to supervise the work which he had specified, and check the Raglan account in respect of it. The Wembley Co. must be taken, the Court thought, to have acquiesced in Mr. Hall's continuing as its quantity surveyor, notwithstanding the conflict of his duty and interest. There was no attempt at concealment on Mr. Hall's part. There was no evidence of any abuse of Mr. Hall's position as regards the War Damage Commission. The judgment of the County Court Judge would be upheld, though on somewhat different grounds from those which found favour with him. The Court could not hold that the Wembley Co. and Mr. Hall acted dishonestly towards the War Damage Commission, but they acted improperly, and to mark disapproval the Court dismissed the appeal with no order as to costs.

DECORATION AND INDUSTRIAL LIGHTING

NEED FOR CO-OPERATION OF ARCHITECTS

THAT the artistic side of industrial lighting had lagged behind the scientific side was a point made by DR. J. H. NELSON when he addressed a meeting of the Illuminating Engineering Society on "Decoration and Industrial Lighting," on December 9.

Following is a summary of the main points made by the speaker :—

On the whole, the artistic side of industrial lighting has lagged behind the scientific. The lighting-engineer has developed the technique of illumination to a very high level, but really good seeing conditions can only result from co-operation between the architect or machine-tool designer on the one hand, and the lighting engineer on the other. The results of recent experiments in industrial decoration and lighting make it worth while reviewing the ideals at which the lighting engineer is aiming and formulating recommendations for industrial decoration based on recent researches in colour harmony.

The most fundamental experimental work from the point of view of defining good seeing conditions is that of Lythgoe, in which he was able to show that for a given brightness level of the test object, the visual acuity was best when the test object was surrounded by an illuminated field of brightness equal to that of the central field. Based on this work and that of subsequent investigators, Moon has developed the more generalised concept of "Delos," being the ratio between the acuity obtainable under a given set of conditions with that obtainable under the same central field brightness, but with a uniform surround field. This concept frees the lighting engineer from the artificial ideal of complete uniformity, and leads to the more practical ideal of surroundings coloured so as to yield variety without distraction.

In planning industrial lighting to give the best possible seeing conditions, it is essential to have a clearly defined policy. The general lighting installation in a shop should only be related to the work to be carried out in a general way. If very high levels of local lighting are to be used, the shop installation must provide a high illumination level, or if only the simplest of work is to be carried out the level may be low. The installation must on no account influence the layout of a shop more than any other attribute of the building. Just as the general lighting installation must be planned and maintained as part of the building, so must the local lighting of a machine tool be planned as part of that tool. Of course, complete independence is not practicable if the lighting engineer is going to relate the surroundings to the brightness of the job.

If agreeable conditions are to be achieved, the surroundings in which the lighting installation is erected and the machine tools in the area must be suitably finished. It is evident that if all surroundings are of very low reflectivity, no practical lighting installation can lead to an adequate brightness distribution.

In order to form a basis for practical recommendations in decoration, the fundamental work of Moon and Spencer on colour harmony is of importance. This series of experiments is concerned with defining : (a) the conditions for pleasing

GREETINGS

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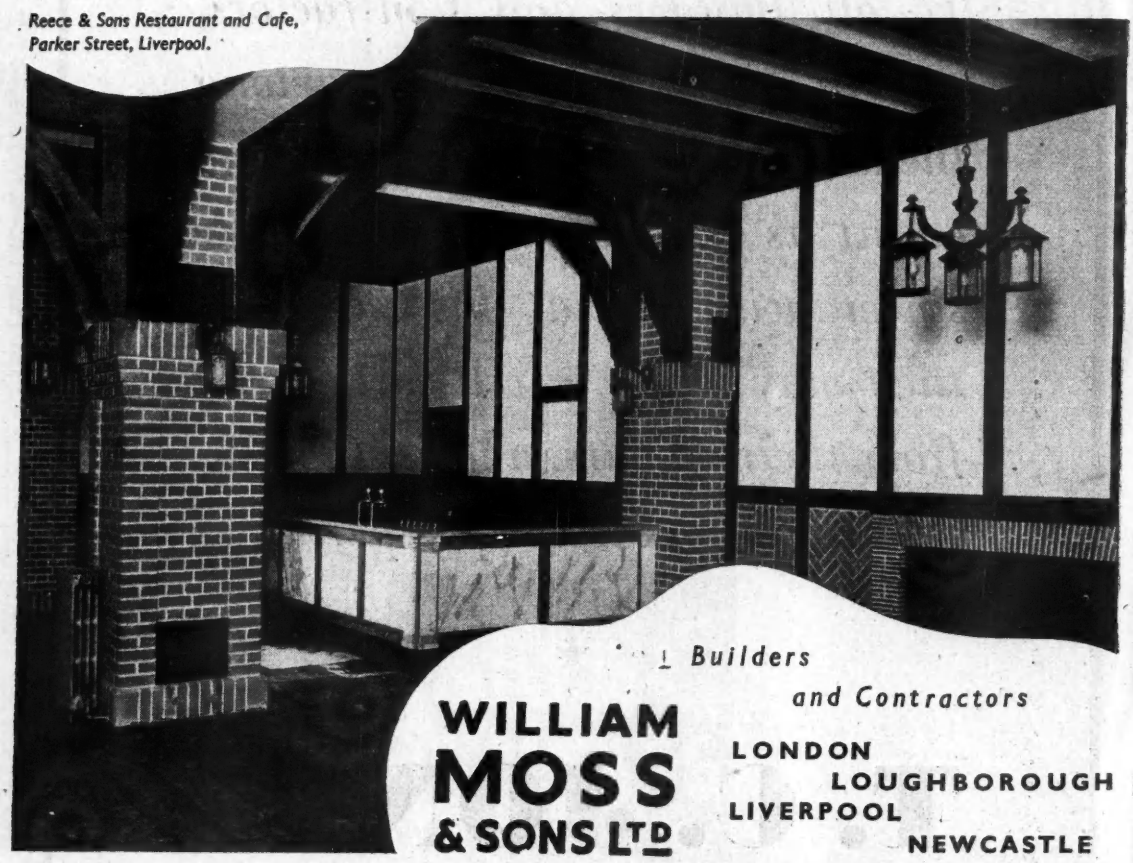

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and displeasing relations between two colours; (b) the relationship of a group of colours to give a colour harmony; (c) the influence of size on the relation between patches of different colours; (d) the psychological effect of a pattern; (e) the assessment of the æsthetic worth of a colour pattern.

Although Moon and Spencer's work is solely concerned with the special conditions under which they carried out their experiments, the results can be used to formulate general rules on colour relations. In particular, the table showing the æsthetic merit of different colour relationships is of fundamental importance.

Practice.

In making practical recommendations for industrial decoration, it is necessary to bear in mind that whilst it is possible to analyse any colour scheme as to its points of harmony and æsthetic merit, it is not possible to create a scheme scientifically. Moreover, the value of individual taste and preference must not be overlooked. The following general plan would, however, seem to provide a guide to good practice :—

(a) Ceilings should be white, so as to render the lighting installation as efficient yet unobtrusive as possible.

(b) The walls and machine tools should be painted with light colours which provide the basic harmony of the pattern.

(c) The high æsthetic merit of contrast should be used to bring out the maker's name plates on machine tools, and on skirtings.

(d) The floor should conform to the general pattern, and a mottled finish will allow the use of a lighter floor than a plain finish.

Details are available of the experience gained in applying the above ideas in a light engineering factory. The technical problem of finding suitable finishes is not insuperable, but maintenance must be accepted as a routine rather than a rare occurrence. In point of fact, maintenance is not a major problem, as the results are so generally acceptable to the operators that extra care is taken.

The subject of industrial decoration is in its infancy, but the results achieved to date indicate that here we have a powerful tool which can contribute much to the betterment of industrial conditions, and not the least being the relation between worker and management.

Local Government Bill: A Memorandum.

A Memorandum of Observations on Parts III, IV and V of the Local Government Bill, 1947, has been submitted to the Minister of Health by the Council of the Royal Institution of Chartered Surveyors.

Fuel Oils for Burners.

A well-known effect of the shortage of coal is the trend towards increased use of oil-burning installations in factories, for locomotives and marine use, and also for domestic use where arrangements for large central-heating installations can be made. For this reason, the publication of a revision of British Standard Specification 742, "Fuel oils for burners," is of special interest. Copies may be obtained from the Sales Department, British Standards Institution, 24, Victoria-street, London, S.W.1, price 6s. post free. Also recently published is a further specification in the series for mastic asphalt for building purposes, B.S.S. 1418, "Mastic Asphalt damp-proof courses and tanking in natural rock containing 6 to 10 per cent. bitumen." The price is 2s. post free.

LONDON TRANSPORT DEVELOPMENTS

THE post-war period on the London Transport railways has been notable for many technical achievements including the development of rails in continuous half-mile lengths, the installation of noise-reduction gear in tubes and the wide introduction and development of apparatus to counter the effect of cold weather on the railways.

This was announced by Lord Latham, Chairman of the London Transport Executive, at the Press conference held at the headquarters of the British Transport Commission on December 5.

Lord Latham also referred to the extension of London Transport railways. The Central Line services, which had been extended to Greenford and Leytonstone, would be further extended to Newbury Park and Woodford in the east within a few days.

Other main works which were projected or in mind were the further extension of the Northern Line from Finsbury Park to Alexandra Palace, from Mill Hill East to Edgware and from Edgware to Bushey Heath. In addition to extensions of the Central Line, north-eastward beyond Woodford, and westward from Greenford to West Ruislip, it was proposed that the Metropolitan Line should be doubled from Harrow to Rickmansworth and electrified as far as Amersham.

These tasks would be energetically pursued, together with the replacement of outworn road vehicles, the strengthening and extension of road services and the conversion of the remaining trams to a more modern form of transport, at the earliest possible time permitted by the national situation.

Explanatory Memorandum.

The Ministry of Town and Country Planning has issued an explanatory memorandum (Part 1—General Notes) on the Town and Country Planning Act, 1947. Copies are obtainable from H.M. Stationery Office, price 6d. net.

NEWS ITEMS

7,948 New Houses for Eire.

The number of new dwellings authorised for construction in Eire, under the Control of Building Order, for the two-year period ending June 30, 1947, was 7,948. The categories will be: 5,025 up to £1,000, 2,487 costing £1,001 to £2,000, and 436 above £2,000. These new houses include 3,258 to be constructed by local authorities, 4,521 by private enterprise, and 168 by the Land Commission and other Government departments.

Two Australian Publications.

The Department of Works and Housing of the Commonwealth Experimental Building Station, Sydney, have published Duplicated Document No. 9, "Report on Foundation Problems Encountered in Clay Soils in Adelaide and Surrounding Districts," by F. G. Hole, B.Sc., and Duplicated Document No. 12, "Report on Tests Carried Out on No-fines Concrete for Compressive, Transverse and Torsional Strength," by A. F. Boyd, B.E. The price of each is 1s.

Paris Trade Fair, 1948.

The total surface already booked by exhibitors for the 37th annual "Foire de Paris" or Paris Trade Fair, to be held next year from May 1 to 17, exceeds the 360,000 sq. yds. available. A new hall of 14,350 sq. yds. floor space is being erected to meet part of the demand.

Machinery and furnishing trades will occupy the largest space allocations. The building trades have returned to pre-war space requirements, and public works enterprises will occupy no fewer than 4,780 sq. yds. more than at the last Fair. British and American firms will be well represented again, particularly in the machinery section.

Christmas Lectures for Boys.

Owing to the success last Christmas of the lectures on "Railways: How they are built and how they run," a series of three lectures on "High-Speed Flying and the Airport" have been arranged at the Institution of Civil Engineers this Christmas, primarily for boys between the ages of 13 and 17 years. The first, on "High-Speed Flying," by Group Captain E. M. Donaldson, D.S.O., A.F.C., holder of the World's high-speed flying record, is at 3 p.m. on Tuesday, December 30. The second, on "The Airport: How it is built," by C. E. Foster, C.B.E., A.M.I.C.E., Deputy Director of Works, Air Ministry, is at 3 p.m. on Friday, January 2, and the third, on "The Airport: How it is run," will be given by Air Marshal Sir John D'Albiac, K.B.E., C.B., D.S.O., Aerodrome Commandant, London Airport, at 3 p.m. on Tuesday, January 6. Tickets, which are free, can be obtained from the secretary of the Institution, Great George-street, Westminster, London, S.W.1.

Students' Vacation Work Scheme.

Details are given in the 13th annual Report to the governors of the Imperial College of Science and Technology (Royal College of Science, Royal School of Mines and City and Guilds College) of the Imperial College Union Vacation Work Scheme for students. The scheme is voluntary except for metallurgical students, and registrations in 1945, 1946 and 1947 were respectively 467, 586 and 705. The Report states: "Such an increase (119 per cent.) cannot, of course, be maintained, but the fact that such a large proportion of the student population of the College is already involved, without compulsion, is some indication that the Scheme has become an accepted adjunct to the theoretical and practical training provided within the College. In the opinion of the Committee, this is due in no small measure to the progressive attitude adopted by the firms that have been kind enough to provide the necessary facilities for vacation work."

New Housing Bill in Eire.

The Government in Eire has just brought in a new Housing Bill, which allows grants of money for private persons building for their own occupation and for Public Utility Societies. Another clause in the Irish Bill is a proposal to license large houses so as to prevent them degenerating into slum tenements. The Corporation of Dublin and the Boroughs of Dun Laoghaire, Cork, Limerick and Waterford are authorised under the Bill to make special provision for persons newly married or about to marry.

Ulster Year Book, 1947.

The Ulster Year Book, 1947, the official Year-Book of Northern Ireland, just published and now on sale at 2s. at H.M. Stationery Office and booksellers, is the first edition to be issued since 1938. The volume is a mine of valuable information on such matters as central and local government, population and vital statistics, land, production from natural sources, industry and trade, transport and communication, education, labour, national insurance and kindred services, housing and health, justice and police, Government and local government finance, and so on. The volume also contains a number of excellent diagrams and maps.

Ministry of Health Loan Sanctions.

The following loans were sanctioned by the Ministry of Health during the quarter ended September 30 to local authorities in England and Wales: Housing, £48,035,849; municipal services (including clinics, sanatoria and mental hospitals), £526,032; gas works, £1,078,957; police purposes, £125,902; public walks and pleasure grounds (swimming pools, playing fields, recreation grounds, open spaces, etc.), £209,456; *water supply, £989,952; *sewerage and sewage disposal, £1,046,395; refuse destruction, £75,416; education services (including libraries and museums), £4,829,186; roads and bridges (including private street works), £834,902; town and country planning, £140,017; civic restaurants, £30,384; other services, £1,041,452. Total, £58,963,900.

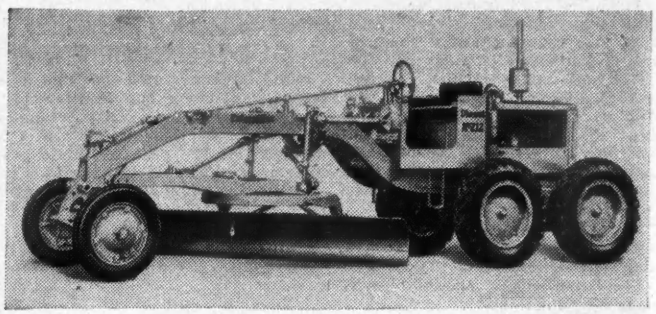
Water Abstraction Regulations.

The marked scarcity of rainfall in many parts of the country during the summer and even in recent weeks lends point to Regulations just issued by the Minister of Health, Mr. Aneurin Bevan, under powers conferred on him by the Water Act, 1945. The Regulations require persons abstracting water from underground sources in England and Wales to keep records of the daily quantities abstracted and to furnish annual returns to the Minister of the total quantity abstracted each year ending on October 31. This information will relate to the quantity abstracted, its quality, and the depth below ground at which the water occurs. Records have to be kept as from November 1 last. The Regulations are published as "Statutory Rules and Orders, 1947, No. 2342 (Water, England)" and may be purchased directly from His Majesty's Stationery Office or through any bookseller, price 1d. (2d. post free).

Wages in the Electrical Trades.

The rates of wages for labour under 21, within Categories II and III of the agreement between the National Federated Electrical Association and the Electrical Trades Union, dated June 14, 1943 (as amended), do not apply to boys aged 15 years. There is no Joint Industrial Agreement to cover the wages of boys of this age group, but in the absence of such agreement the Council has laid down that the basic rates shall be those according to a schedule recently published. Further, it has been decided that the percentage of the journeymen's temporary hourly addition payable to Categories II and III labour under 18 years of age shall be payable also to boys of this age. The inclusive hourly rates payable to boys aged 15 years may also be assessed from the above-mentioned schedule.

* These are net figures after allowance has been made for capital grants and contributions deducted from capital cost before loan sanction. The gross cost of schemes are £1,002,652 for water supply and £1,077,892 for sewerage and sewage disposal.



NEW 45-H.P. "CATERPILLAR" DIESEL No. 212 MOTOR GRADER, which has been announced in production by Caterpillar Tractor Co. The machine is powered by the new "Caterpillar" Diesel D311 Engine, which also serves as the power source for the new, more powerful "Caterpillar" Diesel D2 track-type tractor.

A Summer Meeting.

The Illuminating Engineering Society, 32, Victoria-street, S.W.1, have arranged to hold a summer meeting to take place from June 16-19 next year at Harrogate. The proceedings will open on Wednesday, June 16, with a reception, and during the next two days technical sessions will be held at which papers will be presented and discussed. The papers will be of interest not only to lighting engineers but also to those connected with the textile and plastics industries and to those who are concerned with the applications of lamps and lighting in many spheres. Full details regarding this meeting are available from the Secretary of the Society.

WOOD BLOCK FLOORING

PARQUETRY

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Repairs to and re-surfacing existing flooring by machines.

THE PHILIP FLOORING COMPANY
FLOORING SPECIALISTS
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TRADE NEWS

New American Machinery.

Caterpillar Tractor Co., Peoria, Illinois, has placed in production a new Diesel engine and has introduced new models of the Diesel track-type tractor and the Diesel motor grader this new engine will power, according to an announcement by Jack Olding and Co., Ltd., Hatfield, Herts, distributors of "Caterpillar" products. The new products are claimed to offer marked power increases over the models which they replace in the manufacturer's line of products, and include the four-cylinder "Caterpillar" Diesel D311 engine, the "Caterpillar" Diesel D2 track-type tractor, and the "Caterpillar" Diesel No. 212 motor grader.

Rolador Catalogue.

A well-produced catalogue illustrating various components of the Rolador steel rolling shutters, and indicating positions of fixing and methods of operation, can be obtained by application to Messrs. Haskins, Gnome House, Blackhorse-lane, Walthamstow, London, E.17.

Bailey Bridge Panels.

Messrs. Cox and Danks, plant and machinery merchants, Scapa House, Park Royal-road, London, N.W.10, have recently purchased 32,000 Bailey bridge panels which can be adapted to a wide range of uses, including spacious sheds, etc., for storage purposes. The panels are obtainable from the firm's depots at Sheffield, Birmingham, Feltham and Manchester.

Stuyvesant Town.

The Metropolitan Life Insurance Co., which used R.I.W. products on its own building over 40 years ago, have also used this firm's products on the building of Stuyvesant Town, Manhattan, New York City. Products used on this housing project, which was the subject of an article in our issue of November 21, include R.I.W. Toxement liquid, an integral waterproofing compound for concrete, Portland cement mortar and stucco.

A Firm's Silver Jubilee.

Messrs. Grierson, Ltd., engineering and electrical contractors, celebrate their silver jubilee this year. Many of the personnel have been actively associated since its earliest days, including Mr. J. L. Musgrave (chairman), Mr. C. J. Mills and Mr. C. S. Light (directors and chief engineers), and Mr. H. P. Musgrave (director and secretary). Many large public buildings, schools, factories, flats, hospitals and churches in Britain have been fitted with electric lighting and equipment by the firm.

Weatherproof Glaze Cement.

The Duroglaze Industries Company has sent us details of Duroglaze, a cold glaze cement product, which is claimed to be an excellent finish for either exterior or interior uses owing to the fact that it is weatherproof. It is also produced in the form of glazed asbestos panels under the trade name of "Denniglaze." Particulars can be obtained from 114, Goldhawk-road, W.12.

A New Bending Machine.

Tungum Sales Co., Ltd., Cheltenham, Gloucester, have recently introduced their "Branda" repetition bending machine, incorporating a new and more accurate method of tube, bar and rod bending. The machine is hand operated and requires only semi-skilled labour. Two models are available, small and medium, both being of precisely the same design. A descriptive pamphlet issued by Tungum Sales gives details of production capacity and speed in manipulation.

A New Synthetic Timber.

British Plimber, Ltd., 90, Regent-street, W.1, have recently issued a pamphlet describing "Plimber," a plastic timber. This is a new material made largely from wood waste, all the materials used being home-produced. The principal materials are pulverised wood chips, mixed with other ingredients, plasticised with artificial resins, subjected to pressure and finally cured; other waste materials such as sawdust, straw and flax are also used. "Plimber" may be used for partitions, wall-linings, floors and fitments and can contribute towards a two-thirds saving of timber in normal house construction.

Fibre Building Boards.

The Wood-Fibre Wallboard Company, Staple Hall, Stone House-court, E.C.3, has recently issued a useful booklet of technical notes for architects and builders on fibre building boards. The publication deals specifically with "Ankarboard" insulation and hardboards, which are manufactured by Ankarsviks Ansags Aktiebolag, Sundsvall, Sweden, and for which the sole representatives in England and Eire are the Wood-Fibre Wallboard Company. Details are given of the special characteristics and qualities of the whole range of "Ankarboard" products.

Instantaneous Hot Water.

Messrs. Ewart and Son, Ltd., 169, Regent-street, London, W.1, have recently published "Instantaneous Hot Water Supply by Gas," a treatise primarily framed to be of value to the architect, surveyor and builder. It stresses the need for careful installation and an adequate knowledge of the capabilities of different types of apparatus designed for specific duties and serves as a useful guide and reference book in this respect. Chapters are devoted to the development of the gas geyser, the choice of a system, flue design and connections, water supply pipes, planning and a summary of bye-laws and regulations.

THE SCOTTISH BUILDER

NEW BUILDINGS

Glasgow.—Alterations and additions proposed at Cranston-st., for which the architect is H. Fish, 239, Aros-st., Glasgow. Alterations and additions proposed at Albert-rd., for Keppar, Ltd., for which the architects are Gavin Paterson & Son, 6, Cadogan-st., Hamilton.

Glasgow.—Church halls at Wallace Well and Broomfield-rd., for which the architect is Mr. T. Cordiner, 261, West George-st., Glasgow. J. L. Cheape, Kings Park-rd., will carry out alterations and additions at Cathcart-rd. Alterations and additions proposed for H. Pooley & Sons, Ltd., for which the architect is C. Sinclair, 121, West Regent-st., Glasgow. Alterations and additions proposed for J. McLaren, Ltd., for which the architect is J. Reid, 79, West Regent-st., Glasgow.

Glasgow.—Garage at 40-50, Bellfield-st., for which the architects are Mitchell (Strone), Ltd., Tyneshandon, Strone.

"THE BUILDER" PRICES.

The following (and not those given in our issue for December 5) are the correct prices for L.C.C. coated soil pipes and fittings:—

2 in.	5s. 11d.
2½ in.	6s. 3d.
3 in.	6s. 11d.
3½ in.	7s. 10d.
4 in.	8s. 11d.

Bends: 4s. 6d., 5s. 1d., 5s. 6d., 6s. 10d., 7s. 8d.

Branches: 5s. 6d., 6s. 10d., 8s. 3d., 9s. 6d., 11s. 1d.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

DECEMBER 29.

Carlow C.C.—Approx. 86 houses with outoffices, etc. P. A. Lawler, Secretary, County Offices, Court-pl., Carlow. Dep. £10 10s.

Carmarthen.—Alterations and extensions to ex-W.D. Hospital, Dolgwili-rd. A. Leonard Crabb, Architect, Midland Bank-chbrs., Carmarthen.

Manchester T.C.—New classrooms, etc., at 37, Granby-row, Manchester 1. City A. Dep. £1 1s.

West Riding C.C.—Erection of dining rooms and sculleries, etc., at Castleford Airedale Junior Mixed School. County A., County Hall, Wakefield.

West Riding C.C.—Erection of prefabricated hut for dining room, etc., at Sprotborough Richmond Hill School. County A., County Hall, Wakefield.

DECEMBER 30.

Camelford R.D.C.—6 houses with site works, sewerage and laying of access road at Underrd., Boscastle. B. H. Richardson, C., Council Offices, Camelford.

Hambledon R.D.C.—Conversion of "The Greyhound," Cranleigh, into 4 flats. E. and S., Bury Fields, Guildford. Dep. £3 3s.

†*West Sussex Standing Joint Committee.—Erection of single-storey brick building, including clearing of site, above-ground cable runway, fencing and short water-bound access road in connection with installation of V.H.F. Wireless Station at Burton Down, Madehurst, nr. Arundel. F. R. Steele (F.), County A., County Hall, Chichester.

Yeovil T.C.—Conversion of buildings at Lyde-rd. into three bungalows. B.S.

DECEMBER 31.

†*Ipswich C.B.—Canteen, kitchen and dining-rooms at Westbourne Secondary Modern school. Johns & Slater (F. & A.), 8, Lower Brook-st., Ipswich. Tenders by Jan. 21.

Preston C.B.—Hutted dining-rooms at Frenchwood County Primary school and Trinity County Secondary Modern school. B.E. & S. Dep. £2 2s.

West Dean R.D.C.—24 Airey houses at Berry Hill, near Coleford. Housing S., Council Offices, Coleford, Glos. Dep. £2 2s.

Worcester T.C.—One terrace block of six houses, south aspect; one terrace block of four houses, south aspect; two terrace blocks of four houses each, north aspect, at Newtown No. 1 estate. City E., 22, Bridge-st. Dep. £5 5s.

JANUARY 2.

Cornwall C.C.—Additional classrooms adjoining Bodmin Grammar School. S. Pool, County A., County Hall, Truro. Dep. £1 1s.

JANUARY 4.

Woking U.D.C.—Conversion of Rockhurst, Daneshill, Hockering, into 5 flats. E. and S. Dep. £2 2s.

JANUARY 5.

Huntingdon C.C.—Internal alterations at The Abbey Grammar School, Ramsey, for additional classrooms and new quarters for headmaster. T. H. Longstaff, M.Inst.C.E. (F.), County A., Walden House, Huntingdon.

Liverpool T.C.—Annexe to canteen kitchen at Aigburth Vale High School. City A. & Director of Housing. Dep. £2 2s.

†*West Riding C.C.—Junior school at Monterey-cres., Ecclesfield. County A., County Hall, Wakefield. Tenders by Feb. 2.

Wicklow U.D.C.—80 houses with roads and sewers, etc. Town Hall, Wicklow. Dep. £10 10s.

JANUARY 6.

†*Durham E.C.—Additions and alterations at Chester-le-Street County School; additions and alterations at Hartlepool, Church Close County School. Architect to Ed. Committee, 34, Old Elvet, Durham.

Stockton-on-Tees T.C.—22 Airey houses at Fairfield-rd. site. Boro' A., 124, High-st. Dep. £2 2s.

JANUARY 7.

Camberwell B.C.—24 dwellings at Site No. 1 (1-17, Ablett-st. and 113-129, Barkworth-rd.). Darrell Musker, T.C. Dep. £2 2s. Drawings can be seen at offices of J. Grey and Partner, 56, Oakley-st., Chelsea, S.W.3.

JANUARY 12.

***Beckenham T.C.**—Electricity transformer sub-station at Cedars-rd. B.E. & S. Dep. £2.

***Heston and Isleworth T.C.**—Sub-station at St. John's-rd. B.E. & S. Dep. £3 3s.

***Heston and Isleworth T.C.**—Repairs and replacements to roof coverings at Electricity Station, Bridge-rd., Hounslow. B.E. & S. Dep. £3 3s.

Southport C.B.—Erection of 3 classrooms at Birkdale Modern Secondary School. Chief Ed. Officer, 1, Eastbank-st. Dep. £2 2s.

JANUARY 19.

***Brentford and Chiswick T.C.**—Conversion of 32 huts at Gunnersbury Park. B.E. & S. Dep. £5 5s.

***Guernsey.**—16 houses at Grandes Rocques Barracks, St. Sampson's. E. F. Lainé, States Engineer, States Office, Guernsey. Dep. £1.

JANUARY 30.

East Suffolk C.C.—(a) Canteen kitchen and dining-room at Beccles Secondary Modern School; (b) canteen kitchen and dining-room at Reydon Area School. E. J. Symcox (F.), County A., County Hall, Ipswich. Dep. £2 2s.

MISCELLANEOUS

JANUARY 1.

***Newport (Mon.) C.B.**—Demolition of existing structures and preparation of site at Dock-st. Boro' A. Dep. £1 1s.

JANUARY 5.

Bolton C.B.—Demolition of 80 domestic brick surface shelters and reinstatement of property. B.E. & S.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

DECEMBER 31.

Herefordshire C.C.—County S. (Materials).

JANUARY 3.

Montgomery C.C.—County S. (Materials).

JANUARY 6.

Durham C.C.—Painting and renovation at various schools. Architects to E.C., 34, Old Elvet.

JANUARY 10.

Carshalton U.D.C.—B. and S. (Materials).

Dagenham T.C.—B.E. and S. (Materials).

JANUARY 12.

Camberwell T.C.—B.E. and S. (Materials).

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LONDON, S.E.1

The Hall Mark AYGEE *of Craftsmanship*

LEADED LIGHTS DELIVERED IN

THREE WEEKS

FROM RECEIPT OF ORDER.

ENGLAND'S LARGEST GLAZING CONTRACTORS

JANUARY 17.

Herts C.C.—County S. (Materials).
*St. Pancras B.C.—T.C. (Materials).

ROADS, SEWERAGE AND WATER WORKS

DECEMBER 27.

Hazel Grove and Bramhall U.D.C.—Roads and sewers at Merton-ave., Barrule-ave. and Hazelwood-rd. C. Dep. £2 2s.

DECEMBER 29.

Orpington U.D.C.—Construction of foul water sewers, Chelsfield. E. and S. Dep. £5 5s.
Portslade-by-Sea U.D.C.—Private street works at Newtimber-dr. and Maplehurst-rd. S., 17, Station-rd. Dep. £2 2s.

DECEMBER 31.

Brixworth R.D.C.—Provision for water mains in Eastern area. Pick, Everard, Keay and Gimson, 6, Millstone-la., Leicester. Dep. £2 2s.
†*Gloucester R.D.C.**—Roads and sewers, etc., at Alkerton, Eastington, Glos. C. D. Carus-Wilson (F.), Hardwicke, Glos. Dep. £3 3s.
Mablethorpe and Sutton U.D.C.—Making-up Byron-rd. S. Dep. £1 1s.
†*Machynlleth U.D.C.**—Preparation of Cae Crwn site. W. B. Bond, F.R.I.C.S., Colmore-chbrs., 3, Newhall-st., Birmingham 3. Dep. £2 2s.
Morecambe T.C.—Making-up Fairfield-rd. B.S. Dep. 10.
Northampton R.D.C.—Roads, sewers and water mains at Roade site. R. J. Miller, E., 1, Cheyne Walk, Northampton. Dep. £3 3s.
Sutton and Cheam T.C.—Roads and drainage works at Sutton Common-rd., site A.8. B.E. and S. Dep. £1 1s.

JANUARY 3.

Whitehaven T.C.—3,550 lin. yds. of stoneware sewers, etc. B.S. Dep. £2 2s.
Wirksworth U.D.C.—Roads, sewers and water mains at Middleton site. S. Dep. £2 2s.

JANUARY 5.

Hendon B.C.—500 lin. yds. of carriageway foundations and ancillary works at Harcourt-ave. B.E. and S. Dep. £2 2s.
Wayland R.D.C.—Drains and sewers, etc., at 3 sites. Harold Marsh (L.), 14, King-st., King's Lynn. Dep. £2 2s.
Widnes T.C.—Roads and sewers at Crow Wood estate. B.E. & S. Dep. £2 2s.

JANUARY 12.

Broadstairs and St. Peter's U.D.C.—660 yds. of 9-in. sewer at Fitzroy-ave., Kingsgate. E. and S., Pierremont Hall. Dep. £2 2s.

GENERAL BUILDING WORK (LONDON)

Barnet.—HOUSING.—A scheme for homes for aged persons, consisting of 41 at Hadley-ridge and 19 on a High-st.-site, has been approved in principle by the U.D.C.
Beddington.—FLATS.—T.C. propose to erect 150 flats on various sites.
Bromley.—HOUSING.—B.C. propose to erect 80 houses on Coppice estate. Plans by C. W. Fox (F.), Bridge-rd., Welwyn Garden City, Herts.
Camberwell. — HOUSING. — Kenneth Lindy, Joseph Hill & Partners, 24, St. Mary Axe, London, E.C., are the architects for 108 dwellings to be erected at Croxted House, Croxted-rd., and Acacia-grove, for the B.C.
Carshalton.—HOUSES.—U.D.C. has been informed that M. of H. is prepared to consider plans for erection of houses, Banstead-rd.
Caterham.—HOUSING.—U.D.C. proposes to erect 48 dwellings at Banstead-rd. and Foxley-la. Plans by B.S.
Caterham.—HOUSING.—The Borough Council has accepted, subject to confirmation, an amended offer of Messrs. Walter Smith & Partners for the erection and sale to the Council of six P.W.3 houses, Gresham-av.
Catford. — HOUSING. — Plans by R. J. E. Horsham, 10, Warren-av., Bromley, Kent, for rebuilding war-damaged dwellings, at 376-382, Bromley-rd.
Catford.—REBUILDING.—Of 46-52, Sangley-rd., as four lock-up shops with eight flats above, proposed. Architect is G. T. Harman (A.), 90a, Lewisham High-st.
Charles-st.—CLUB.—Reconstruction and extension is projected by English Speaking Union. Architects are Watkins & Piazza, 7, Fernleigh-ct., North Wembley.
Chelsea.—FLATS.—L.C.C. have sanctioned the borrowing of £129,927 by the B.C. for the completion of one block of the Cardogan-av. housing scheme.
Forest Hill.—REINSTATEMENT.—Plans by Dunsmore Bros., 53, Brockley-rise, S.E.23, for reinstatement, as 12 flats, of 41-43a, London-rd.
Greenwich.—HOUSING.—B.C. propose to acquire sites in Woolacombe-rd. for housing purposes.
Greenwich.—HOUSING.—B.C. propose to acquire Pond-rd. housing site.
Greenwich.—RECONSTRUCTION.—Plans by L. M. Gotch & Partners, 21, Bunhill-row, E.C.1, for conversion into six flats of 21, Dartmouth-row.
Hackney.—HOUSING.—Sites included in the Mead-place area and the Homerton-terr. site are to be leased by the Bethnal Green and East London Housing Assn. for new dwellings.
Hampstead. — REDEVELOPMENT. — The L.C.C. Housing Committee have approved the acquisition, clearance and partial redevelopment for housing purposes of the Boundary-road site by the B.C.
Hampstead and Hendon.—REDEVELOPMENT.—The L.C.C. Housing Committee have approved the acquisition, clearance and partial redevelopment for housing purposes of the Burgess-hill site by the B.C.
Kensington.—FLATS.—B.C. propose two blocks of flats on a site bounded by Campden Hill rd., Sheffield-terr., Hornton-st. and Tor-gdns.
Kensington.—FLATS.—The L.C.C. have granted permission for eleven blocks to be built by the B.C. on the Becker-st. site.
Lewisham.—REBUILDING.—Plans by L. A. Cullifford & Partners, 47, Essex-st., Strand, W.C.2, for rebuilding four flats, 7, Baring-rd., S.E.
Morden.—YOUTH CENTRES.—The L.C.C. Housing Committee have recommended that the sites in St. Heliers-av., Myddleton-rd. and Peterborough-rd. be let on lease for 80 years to the S.C.C. for the erection of youth centres.
Regent-st. — REPAIRS. — At Regent Palace Hotel, for Strand Hotels, Ltd., 12, Sherwood-st., W.1. Architects are F. J. Wills & Son, 199, Piccadilly, W.1.
Shoreditch. — REBUILDING. — Of factory of Messrs. R. Pye & Co., on corner of Ebenezer-st. and Britannia-walk, approved by B.C.
Shoreditch.—FLATS.—The B.C. has received approval from the M. of H. for 40 flats on the Felton-st. area.
Stepney.—REINSTATEMENT.—The L.C.C. Housing Committee have approved the reinstatement of part of Dellow Buildings, Cable-st. estate.
Walthamstow.—REBUILDING.—Warner Estates, Ltd., Brettenham House, Lancaster-place, W.C.2, have had plans prepared for rebuilding 31-41, Fleming-st., E.17. Architects are Sir John Brown, A. E. Henson & Partners, 117, Sloane-st., S.W.1.
Wandsworth.—HOUSING.—The B.C. propose to acquire sites for housing at Babington-rd., Fairmile-av. and Gosberton-rd.
Wandsworth.—FLATS.—Messrs. McConville and Fraser, Craven House, 121, Kingsway, W.C.2, have been appointed by the B.C. as quantity surveyors for 126 flats on fifteen sites in the borough.
Wandsworth.—SCHOOL EXTENSION.—Extensions are proposed to St. Michael's School, Granville-rd., Southfield.
Wimbledon.—BATHS.—T.C. proposes to acquire sites in South Park-rd. for extension of baths.

(PROVINCIAL)

Atherton.—M.O.W. propose conversion of Yew Tree House into offices, for Ministry of National Insurance.
Bangor, N. Wales.—T.C. approved telephone exchange at Deiniol-rd., for M.O.W.
Barrow-in-Furness.—E.C. received approval of M.O.E. to development plan for 16 new schools to be erected at £1,149,980. J. N. Flitcroft, A.M.Inst.C.E., B.S.
Bedlington.—Miners' Welfare Commission, Ashley House, Ashstead, Surrey, propose pit-head baths at West Sleekburn Colliery. C. G. Kemp (F.), architect, 5, Old Queen-st., London, S.W.1.
Blackpool.—E.C. propose school at Grange Park estate. Plans by A. Hamilton (A.), B.S.
Caernarvon.—Caernarvonshire E.C. propose dining-room and kitchen at Glanadda School.
Chorley.—Branch of National Farmers' Union propose modern dairy and pasteurisation plant.
Clitheroe.—Lancs E.C. propose dining-room and kitchen at Royal Grammar School. G. Noel Hill (F.), County A., County Offices, Fishergate-hill, Preston.
Droitwich.—R.D.C. approved: Additions to works, Upton Warren, The Queslett Sand & Gravel Co., Ltd.
Dunham Massey.—Altrincham, Bowden, Hale & District Joint Burial Board propose crematorium adjoining Whitehouse Farm.
Easingwold.—G. Mallinson & Sons, Ltd., Woollen Manufacturers, Spring Grove Mills, Linthwaite, Huddersfield, propose factory.
Exeter.—Governors of Royal Devon and Exeter Hospital to erect radio-therapy department and dining-hall, at £10,000. Plans by H. M. R. Drury (F.), The Church House, The Close, Exeter. Work to start next year.
Felling (Co. Durham).—Page, Son & Hill, 75, King-st., South Shields, are architects for proposed rebuilding of "Pear Tree Inn," Sunderland-rd., for A. Deuchar, Ltd., Newcastle-on-Tyne. E. M. Lawson, Barras-bldgs., Barras Bridge, Newcastle-on-Tyne, submitted proposals for development of land for business purposes at Crow Hall-la., for N. Baker.
Folkestone.—E. L. Allman, B.E., prepared proposals for redevelopment of Harbour area.
Hainault.—Six shops with six maisonettes above are to be built on the Hainault estate, Essex, by the T.C. This is subject to the agreement of the Minister of Health.
Hove.—Plans prepared by L. A. Cooper, 21, Lansdown-rd., Hove, for conversion into 10 flats of 8, Grand-av.
Huntington.—Ches. C.C. propose Welfare Centre at Tarvin House, Heath-la.
Keighley.—Ernest Slater, Ltd., builders, Dunkirk-rise, Riddlesden, propose 160 houses at Western-av., Riddlesden.
Keswick.—U.D.C. approved layout for 12 building sites at Swang Field, Portinscale-rd., for E. Peel.
Liverpool.—Lancs E.C. propose Junior and Infants' school at Aintree. Plans by G. Noel Hill (F.), County A., County Offices, Fishergate-hill, Preston.
Llanllechid.—Caernarvonshire E.C. propose Primary school. Plans by W. Ll. Jones (L.), County A., County Offices, Caernarvon.
Manchester.—T.C. approved: Extensions to nurses' home, Duchess of York Hospital for Babies, Burnage-la., Cringle Hall-rd. and Lindsay-rd., Levenshulme, for Board. Bradshaw, Gass & Hope (FF.), architects, 19, Silverwell-st., Bolton; alterations to offices, St. Peter's-sq. and Back George-st., for Committee of the Halle Concerts Society, Harry S. Fairhurst & Son (FF.), architects, Chancery-chbrs., 55, Brown-st.; additions to offices and workshop, 21-23, Shudehill, J. E. Williamson, A. R. Walsingham (L.), architect, 50, High Grove-rd., Cheadle, Ches; extensions, works, Queen-st. and Upper Dover-st., Francis Shaw & Co., Ltd., Sydney Moss (F.), architect, 148, Windermere-rd., Kendal; hosiery factory, Longley-la. and Harling-rd., Northenden, for John Lee (Wearlee), Ltd., Arthur Brocklehurst & Co. (F.), 10, Norfolk-st., Brown-st.; alterations and additions to works, Boundary-st., Malpas-st., Great Jones-st. and Birch-st., Gorton, for Joseph Cockshoot & Co., Ltd., J. W. Beaumont & Sons (FF.), architects, Danlee-bldgs., 53, Spring-gdns., Mosley-st.
Marple.—M.O.W. propose offices at Union-rd., for Ministry of National Insurance.
Middx.—E.C. propose to establish County Primary schools at Mount Stewart-av., Kenton; East Acton-la., Acton; Nether-st., Finchley; Bedfont-rd., Feltham; and County Secondary school at Victoria-rd., South Ruislip.
Newcastle, Staffs.—T.C. approved club premises at Brampton-rd., for Committee of British Legion Association local branch. Wood, Goldstraw & Yorath (A. and L.), architects, Lloyds Bank-bldgs., Staffs. E.C. propose dining-room and kitchen at Albert-st. County Primary school.
Newport (Mon).—Community Housing (London), Ltd., 20, Victoria-st., S.W.1, propose 34 houses in Ridgeway district. Plans by R. V. Walker (L.), 8, Pentonville, Newport, Mon.
Newport (Mon).—Ideal Polish Co., Ltd., 71, Shaftesbury-st., Newport, to extend factory at St. Stephen's-rd. Plans by William Graham & Co., Midland Bank-chbrs., Newport.
Norwich.—Norwich Housing Society propose to erect block of 10 flats at Adelaide-st., for aged persons. Plans by Buckingham & Berry (FF.), 31, Prince of Wales-rd., Norwich.
Plymouth.—Millbay Laundry, Cleaning & Dyeing Co., Ltd., propose to rebuild factory. Plans by Fouracre & Channon, 7, Alexandra-rd., Mutley, Plymouth.

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Romford.—Plans prepared by W. Goodchild & Co., 85, South-st., Romford, for development for industrial purpose of Spring-gdns. Estate.

St. Leonards-on-Sea.—Plans prepared by John S. Hicks (L.), 37, De Cham-rd., St. Leonards, for rebuilding of 6, Sedlescombe-rd.

Salford.—T.C. approved: Storage buildings at Hothersall-st., for Featly Products, Ltd.; additions, Victoria Cinema, Great Clowes-st., for Directors, H. A. Yearsley (L.), architect, 15, Alan-rd., Withington; additional storey to factory, Blackfriars-st., for Butt Bros. & Cooke, Ltd. T.C. propose 'bus station at New Bailey-st. E.C. propose school canteen at Belle Vue and Leaf-sq., Pendleton, for Salford Grammar school.

Scarborough.—F. Baker, York-pl., Scarborough, is architect for ice-cream factory, for G. Paccitto & Sons, Ltd.

Sheffield.—E.C. propose school canteen and extensions at Maltby-st., County school.

Smethwick.—Charles Carr, Ltd. (inc. Non-Ferrous Casting Co.), propose canteen and extensions to works at Grove-la.

Stockport.—T.C. approved: Additional brick storeys at Wellington-gr., for J. Blower; alterations at Black Lion hotel, Middle Hillgate, R. Clarke & Co., Ltd., brewers, Sandy-la. E.C. propose school canteen and new school adjoining Heaton Mersey Park.

Stretford.—T.C. approved: 64 flats at Brompton-rd. and Winchester-rd., for Housing Committee; extensions at commercial garage, Market-st., for F. Lewis, Ltd.

Sunderland.—Newrick & Blackbell, 24, John-st., Sunderland, are architects for offices at Southwick Goods Yard, for J. Young, Ltd.

Sunderland.—E.C. to erect double-decker kitchen dining-rooms at schools, the first being Barnes school. Plans by Architects' Dept., Education Offices, Tatem-st.

Sunderland.—Works canteen proposed by T. S. Forster & Sons, Ltd., Copperas Bank Forge, Sunderland.

Tyldesley.—Catholic authorities of Hindsford St. James' Church propose schools at Astley-st.

Wakefield.—T.C. approved: Alterations to works at Calder Vale-rd., for E. Green & Sons, Ltd., Kay & Hartley, architects, 4, Crown-st.

Wallsend.—L. J. Couves & Partners, Carliol House, Newcastle-on-Tyne, are architects for additions at Neptune-rd., for Thermal Syndicate Co., Ltd.

Walsall.—New premises to be erected for Walsall & District Savings Bank, Ltd. Plans by C. C. Gray (A.), 15, Bridge-st., Walsall.

Warrington.—T.C. approved: Extensions to works and staff dining-room at Bewsey-rd., for N. Greening & Sons, Ltd.

Watford.—Plans prepared by Dawe & Carter, 83, High-st., Watford, for block of flats at junction of Sandringham-rd. and Pargate-rd.

West Hartlepool.—T.C. to erect workshop block at technical college.

Workington.—T.C. approved: Works canteen at cloth factory, for Cumberland Cloth Co., Ltd.

TENDERS

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Barking (Essex).—Preliminary works, piling, etc., for Barking "C" Electricity Generating Station, for County of London Electric Supply Co., Ltd. Sir Alexander Gibb & Partners, consulting engineers, Queen Anne's Lodge, Queen Anne's-gate, S.W.1: *Sir Robert McAlpine & Sons (London), Ltd., 31, Park-la., W.1.

Bath.—200 B.I.S.F. houses at Twerton and 100 B.I.S.F. houses at Weston, for T.C.: *Wilson Lovatt & Sons, Ltd., £390,350.

Bexhill.—Conversion of Roberts Marine Mansions into 18 flats, for T.C.: *Cave & Brookes, Bexhill (subject to M.H. approval).

Blaenavon.—44 houses for U.D.C.: *C. Jones Construction Co., Ltd., Cardiff.

Boldon (Co. Durham).—Alterations at "Thorncliffe," Whitburn, for S. Collings: *Snowdon Bros., Belford-rd., Sunderland, £7,000 (licence issued).

Bootle.—Rebuilding and major repairs of ladies' plunge bath at Balliol-rd., for C.B. W. A. Harrison, O.B.E., M.Eng. (L'pool), M.I.C.E., M.I.Mun.E., B.E. & S.: *Public Works Section of Bootle C.B. (subject to M.H. approval).

Bradford.—Additional 24 houses at Buttershaw estate, for City Council: ‡Direct Labour, £33,716.

Bromley (Kent).—First section (54 flats), London-rd. housing estate, for B.C. Dalgleish & Pullen (FF.), architects, 17, Fitzhardinge-st., Portman-sq., W.1: ‡Joseph Cartwright, Ltd., 100, King's-av., S.W.4, £76,174.

Caine.—Conversion of Beechfield Camp, Corsham, into dwelling accommodation, for R.D.C.: *Woodhope, Ltd., Trowbridge, £16,521.

Clun.—18 "Airey" houses, for R.D.C. A. E. Williams (L.), Kenneth-chbrs., Dogpole, Shrewsbury: *W. R. Williams, Minsterley, Shrewsbury, £25,300.

Coleraine.—24 houses at Garvagh, Co. Londonderry. W. & M. Given, architects, The Diamond, Coleraine. Quantities by Crofton Dalzell, A.M.I.S.E.: *Matthew Ross (Coleraine), Ltd., Rossavon, Coleraine, £35,290.

Coventry.—Rebuilding flats at Grosvenor-rd., for Greyfriars Estates, Ltd., Rolf Hellberg (F.), architect, 13, Queen Victoria-st., Coventry: *Garlicks, Ltd., 42, Far Gosford-st., Coventry.

Deptford.—Rebuilding transit sheds at St. George's Wharf, for William H. Muller & Co. (London), Ltd., Lower Thames-st., E.C.4. C. T. Pell, B.Sc., architect, 4, Manchester-sq., W.1: *John Mowlem & Co., Ltd., 91, Ebury Bridge-rd., S.W.1.

Droitwich.—24 "Airey" houses at Stalls Farm Estate, for T.C.: *G. Harrison (Builders), Ltd., Droitwich.

Dunmow (Essex).—Showrooms, workshops, etc., at Stortford-rd., Gt. Dunmow, for Butcher & Sons, High-st. Basil I. Briggs (A.), architect, Old Town Hall, Market-pl., Gt. Dunmow: *J. A. Elliott, Thorley Hill, Bishops Stortford, Essex.

Easingwold.—30 "Airey" houses at Galtres estate, for R.D.C. Needham & Thorpe, architects, 6, High Petersgate, York: *Chester & McLauchlan, Ltd., Knottingley.

Enfield.—Kitchen and dining-room at Albany and Brimsdown Schools, for Middx. C.C.: *A. Scott & Sons (London), Ltd., Winchmore Hill, £9,953 and £10,535 (subject to M.E. approval).

Fromo.—Eight houses at Mells, for R.D.C.: *A. A. Andrews, High-st., Midsomer Norton (subject to M.H. approval).

Goole.—14 "Airey" houses at Rawcliffe Bridge and 10 at West Cowick, for R.D.C.: ‡R. K. Poskitt (Beal), Ltd., £18,480 and ‡Durham & Ramsey, Snaith, £13,298, respectively.

Harrow.—Kitchen and dining-room at Whitefriars Schools, Harrow Wealdstone, and Camrose schools, Harrow, for Middx. C.C.: *H. Pickerill, Ltd., Wealdstone, Harrow, £10,243, and *J. Lawson & Co., Ltd., Acton, £10,680 (subject to M.E. approval).

Lewisham.—Rebuilding seven houses at Perry-rise. Atherton & Brenchley (AA.), architects, 36, Paddington-st., W.1: *Hall & Neild, Ltd., 49, Honor Oak Park, Lewisham, S.E.

¶London (Admiralty).—*Gosport*, H.M.S. *Collingwood* Electrical School, Heating installation, Brightside Foundry & Engineering Co., Ltd., Millers-bldgs., Hampshire-ter., Portsmouth.

¶London (M.O.W.).—Contracts placed by M.O.W. for week ended December 11:—*London:* Admiralty Buildings, Whitehall, S.W.1, internal cleaning, Fields, Ltd., 4, Chandos-court, Caxton-st., S.W.1. Queen Anne's-chambs., Tothill-street, S.W.1, external and internal painting and cleaning, Sykes & Son, Ltd., 10, Essex-st., W.C.2. Min. Nat. Insurance, 105-113, The Broadway, West Ealing, W, reinstatement of M.N.I., C. F. Kearley, Ltd., Grove Works, British-gr., W.4. *Ayrshire:* New Cumnock Higher Grade School, temp. classrooms, Alexander Bros., 12, Maxwood-rd., Galston, Ayr. *Berks:* A.E.R.E., Harwell, adaptations to bldgs. re water treatment plant, Permutit Co., Ltd., Permutit House, Gunnersbury-ave., London, W.4. *Ches:* M.N.I., Lodge-la., Hyde, alterations and adaptations, E. E. Coleman, Ltd., Waverley-st. Works, Sale, Ches. M.N.I., Stockport, alterations and adaptions, E. E. Coleman, Ltd., Waverley-st. Works, Sale, Ches. Hollywood Park School, kitchen and dining-room, Jones & Craig, 11, Brookleigh-rd., Withington. *Cumberland:* Windscale Works, Sellafield, fabrication of steel roof decking, Brown & Tawse, Ltd., St. Leonard's-st., Bromley-by-Bow. *Durham:* Commercial-rd. School, Sunderland, additional classrooms, George Porteous (Bldrs.), Ltd., 16, Norfolk-st., Sunderland. *Fifeshire:* M.N.I., Cowdenbeath, office building, George Wimpey & Co., Ltd., 37, Drumsheugh-gdns., Edinburgh. Miners' Hostel, Townhill, Dunfermline, additions and alterations, David Anderson, Eastbank, Crossford-by-Dunfermline. *Glam:* Cardiff Employment Exchange, supply and fixing of joinery, E. Turner & Sons, Ltd., Penarth-rd., Cardiff. *Kent:* Burnt Ash Council School, "Quernmore," London-ln., Bromley, temporary buildings, W. R. Oldham, Ltd., 450, Upper Elmers End-rd., Beckenham, Kent. Chislehurst and Sidcup Girls' School, Alma-rd., Sidcup, temp. buildings, W. R. Oldham, Ltd., 450, Upper Elmers End-rd., Beckenham, Kent. *Lanarkshire:* M.N.I., Rutherglen, offices, Hugh Broadley, Ltd., 8, Gourock-st., Glasgow. *Lancs:* M/Labour W.D. Camp, Old Clough-ln., Walkden, alterations and adapts. for hostel accom., E. & E. Street, Ltd., Bolton-rd. Saw Mills, Kearsley, Lancs. *Linlithgowshire:* Armadale Public School, temp. classrooms, Wm. Roberts & Sons, Ltd., Mid-st., Bathgate, West Lothian. *Northumberland:* Goswick, nr. Berwick, removal defence works and reinstatement, bombing range and farm, J. G. Green & Sons, Ltd., The Butts, Warkworth, Northumberland. *Notts:* Sneinton Dale Girls' School, Edale-rd., Nottingham, temp. bldg., W. & J. Simons, Ltd., Gordon-rd., West Bridgford, Nottingham. *Oxfordshire:* Chipping Norton, telephone repeater station, Alfred Groves & Sons, Ltd., Milton-under-Wychwood. *Roxburghshire:* Yetholm, temp. houses, Andrew Bulman, Ltd., 14, Coalmarket, Kelso. *Somersetshire:* Admiralty, Foxhill, Bath, temp. office block, Henry Kent (Bldrs.), Ltd., 51, Beacon-rd., Hither Green, S.E.13. *Staffs:* Polish Camp, Merry Hill, Wolverhampton. Adaptations, Thomas Payne & Sons, Ltd., 31, Churchfield-st., Dudley, Worcs. *Warwickshire:* Ashley-st., Birmingham, M.N.I.-T.O.B., B. T. Felton & Sons, Ltd., 442, Chester-st., Sutton Coldfield, Birmingham. *Yorks:* Duchess-rd. County School, Shoreham, Sheffield, temp. bldg., Allen, Allen & Co., Ltd., Norfolk-bldgs., White-ln., Chapeltown, Sheffield. Carlton-ln. School, Rothwell, temp. bldg., J. H. Thorpe & Son, Ltd., Grove House, Church-ln., Normanton.

London (War Dept.).—Works contracts placed by War Dept. for week ended December 6:—*Wilts:* Roadwork, A. E. Farr, Ltd., Westbury, Wilts.

Mallow, Eire.—20 houses at Lacknalooha, for U.D.C.: *J. J. Sullivan & Sons, Tralee.

Monmouth.—Six houses at Llanishen, for R.D.C.: *Watkins & Richards, Chepstow.

Newcastle, Staffs.—Extensions to foundry at Knutton-rd., for Trent Foundries, Ltd. A. Cotton, Son & Richards, Piccadilly, Tunstall, Stoke-on-Trent: *S. Ellams, 11, Whitehouse-rd., Newcastle,Staffs.

Newcastle-on-Tyne.—Offices at Ellison-pl., for National Coal Board. Architects: Cackett, Burns Dick & McKellar, 21, Ellison-pl., Newcastle: *Stephen Easten, Ltd., Westgate Grange, Newcastle.

Newcastle-on-Tyne.—Alterations to provide dining-rooms at Victoria Jubilee School, for E.C. F. W. Harvey, E. Architect, Northumberland-rd., Newcastle: *R. W. Bell & Co. (Builders), Ltd., New Mills, Barrack-rd., Newcastle-on-Tyne.

Newport, Mon.—Completion of second section of Civic Centre, for T.C.: ‡Gee, Walker & Slater, Ltd., Park-la., W.1, £40,502.

Omagh, Co. Tyrone.—22 houses at Brookmount: *Messrs. Cull, Jonesboro, Belfast, £37,710.

Oxford.—Conversion of huts into flats at Jowett Walk Camp, for City Council: *Knowles & Son (Oxford), Ltd., 36, Holywell-st., Oxford, £8,766.

Peterborough. — Extension to Electricity Generating Station, for City Council. Sir Alexander Gibb & Partners, consulting engineers Queen Anne's Lodge, Queen Anne's-gate, S.W.1. Pilings, etc.: *Piling & Construction Co., Ltd., Worcester-rd., Sutton, Surrey.

Sevenoaks.—Erection of Hatton County Modern School, for Kent C.C.: *S. Berwick, 14, Crampton's-rd., Sevenoaks.

South Shields.—Temporary Baptist Church at Horsley Vale: *Milton Swales, Ltd., Imeary-st., South Shields.

South Shields.—War-damage repairs at Regent Cinema, Dean-rd.: *Henderson Bros., Smith-st., Tyne Dock, South Shields (licence issued).

Spennymoor.—For alterations and adaptations at Ministry of National Insurance: *G. Stephenson, Chester-st., Bishop Auckland.

Stockport.—Works for T.C. W. F. Gardner, M.Inst.C.E., B.E. First instalment, Broadstone Hall-rd. Primary school, Reddish. Cruickshank & Seward (F.), architects, 16, Princess-st., Manchester 1: *C. H. Godfrey & Sons, Ltd., Bowling-rd., Gorton, Manchester 18. £18,592.

Stornoway.—Extension of King Edward Pier, for Stornoway Pier and Harbour Board. Archibald Henderson & Partners, consulting engineers, 21, Bridge-st., Aberdeen: *Christiani &

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Neilsen, Ltd., 54, Victoria-st., S.W.1 (cost £200,000).

Strand, W.C.—Repairs and reconstruction of 196, Strand, for Illustrated Newspapers, Ltd. Architects: Yates, Cook & Darbyshire, 43, Great Marlborough-st., W.1: *Allen Fairhead & Sons, Ltd., Sydney-rd., Enfield.

Sunderland.—12 houses for T.C.: *G. H. Plemper, Ltd., Old Chester-rd., Sunderland.

Swale.—"Airey" houses for R.D.C. 30 at Lynsted: *T. Monk & Sons, £42,830; 26 at Selling: *E. Bishop & Sons, £37,372; 10 at Sheldwich Lees: *R. High & Sons, £14,315; 30 at Upchurch: *L. Edwards & Sons, £42,477 (subject to M.H. approval).

Swansea.—Large oil tankage, refuelling depot, etc., at Swansea Motive Power Depot, for L.M.S. Railway. Plans by Chief Engineer's Department, The Grove, Watford. Foundations and site works: *Cafin & Co., Ltd., 25, Craven-st., Strand, W.C.2.

Wallsend.—Erection of (a) 36 houses and (b) 40 houses, for T.C.: (a) *R. A. Gofton & Sons, Monkseaton; (b) *J. H. James, Archer-st., Wallsend.

Wallsend.—Office block at Swans Bank, for Swan, Hunter & Wigham Richardson, Ltd. Architects: R. Shepphard and J. Shufflebotham, 20, Gower-st., London, W.C.1: *Holland & Hannen and Cubitts, Ltd., Queen Anne's-gate, London, S.W.1.

Warrington.—Works for T.C. J. Y. Hughes, M.Inst.C.E., B.S. 20 houses, Dallam Farm estate: *Clough & Gaskell, Ltd., Billinge-rd. Saw Mills, Wigan, £22,219; 20 houses, Poplars-av. site: *W. L. Challinor, 2, Brian-av., £22,155 (in lieu of tenders previously accepted).

Warrington.—Factory, Westford-st., Morley Common, for B. Laporte, Ltd.: *Taylor Woodrow Constructions, Ltd., Ruislip-rd., Southall, Mddx.

Watford.—Extension of factory at Chester-rd., for Standard Range and Foundry Co., Ltd. Dawe & Carter, architects, 83, High-st., Watford: *C. Brightman & Sons, Ltd., Ebury-rd., Watford, Herts.

West Ham.—Two cooling towers at West Ham "B" Electricity Generating Station, for B.C. Sir Alexander Gibb & Partners, Queen Anne's Lodge, Queen Anne's-gate, S.W.1: *J. L. Kier & Co., Ltd., 7, Lygon-pl., Grosvenor-gdns., S.W.1, £215,680.

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